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The World Economy and the German Economy in the Autumn of 2005

An Evaluation of the Economic Situation by the following members of the Association of German Economic Research Institutes, Berlin.

DIW Berlin, Deutsches Institut für Wirtschaftsforschung

Hamburgisches Welt-Wirtschafts-Archiv (HWWA)

Ifo Institut für Wirtschaftsforschung at the University of Munich

Institut für Weltwirtschaft at the University of Kiel

Institut für Wirtschaftsforschung Halle

RWI Essen, Rheinisch-Westfälisches Institut für Wirtschaftsforschung

Finalized in Essen, October 19, 2005

The World Economy

Overview

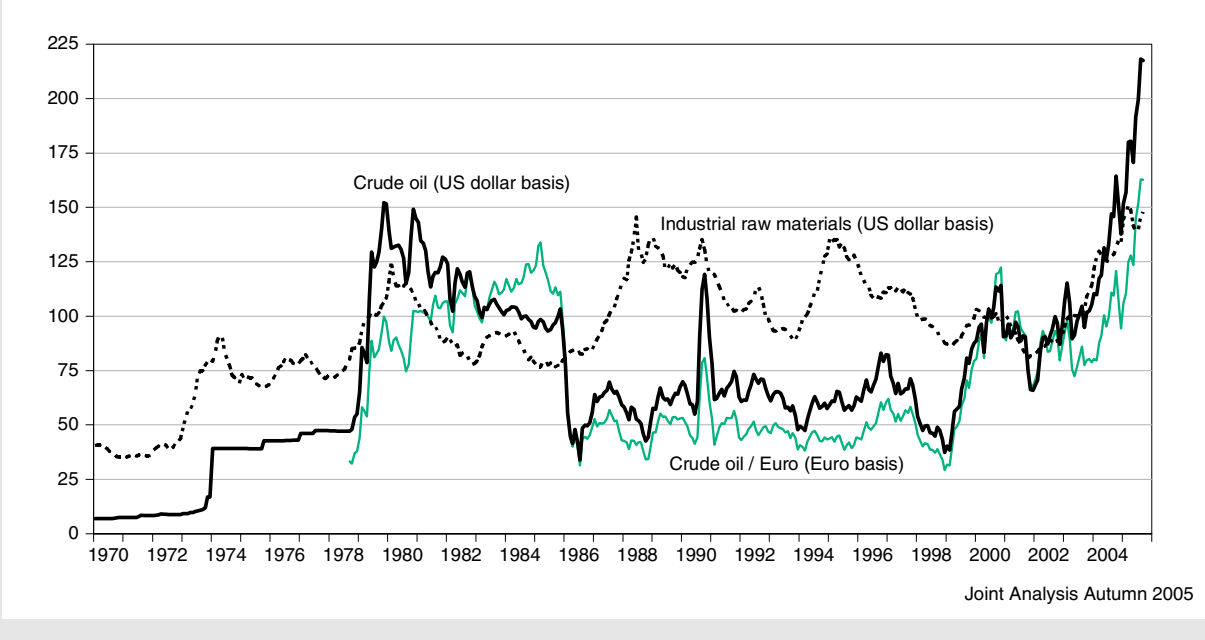
The world economy continues to expand robustly in the fall of 2005 despite the increase in the price of oil. Having slowed over the course of last year, output growth has actually accelerated again. The negative effects exerted by the higher prices for crude oil and other commodities have been counteracted by an ongoing expansionary monetary policy stance, by low interest rates on the capital markets, by a substantial appreciation in the value of assets, and by a very favorable profit situation for enterprises. As a result, real Gross Domestic Product continued to expand rapidly in the first half of the year in the growth centers China and the USA, while, following a period of stagnation, it also increased significantly in Japan. The expansion of macroeconomic output persisted in many industrializing countries, whereas growth remained moderate in the euro zone and in Great Britain.

These different growth rates to a large extent reflect differences in the rate of expansion of productive capacity, which is much higher in the USA than in Japan or the euro zone. But the differences between the regions' cyclical trends have also persisted. While macroeconomic capacity utilization increased perceptibly in the USA and in Japan, it diminished again in the euro zone. At the same time, the imbalances in the global economy were

Figure 1

HWWA Index for Crude Oil and Industrial Commodities, 1995 to 2005

2000 = 100



Source: HWWA (Hamburg Institute of International Economics).

further reinforced. Thus, the USA's current account deficit rose to a hefty 6% of GDP. By contrast, China saw a sizeable increase in its current account surplus despite high import spending on oil and other commodities. In particular, however, the current account surpluses of the oil-exporting countries expanded significantly.

Inflation strengthened over the course of the year, in most cases noticeably so. However, the increase was primarily a direct consequence of the rise in energy prices. There were no conspicuous second-round effects as wage growth accelerated at most marginally. Measured in terms of the core inflation rate, price growth basically remained moderate, and there was also little increase in inflationary expectations.

World economy defies sharp rise in oil prices

The price of crude oil has more or less doubled over the course of the last two years (cf. figure 1). Around US $ 60 are currently paid for a barrel of North Sea Brent, and the Institutes have based their forecast on the assumption that this price will persist (cf. box 1). The most recent price rise has thus reached the kind of dimensions seen in 1973 to 1974, 1978 to 1980, 1989 to 1990, and 1999 to 2000. Each of these oil-price shocks was accompanied by a pronounced slowdown in world economic activity.

However, it is not certain to what extent the increase in the price of oil was actually a decisive factor behind the recession in each of these cases. In both 1973 and 1990, for example, the economic turning point in the USA occurred not prior but subsequent to the relative oil-price shock.[1]

When the burden on the national economies of the industrialized countries is measured in terms of the loss in purchasing power determined by the oil-price rises – which can be approximated as the change in the 'oil bill' – the effects due to the episodes in 1990 and 1999 to 2000 prove to be comparatively slight (cf. table 2). By contrast, the additional expenditure required between 2003 and 2005, which totals over 1.5% of GDP, is substantial, even if the burden is smaller in most cases than during the oil-price rises of the 1970s, because the oil intensity of production has decreased substantially (cf. figure 3).[2]

Simulations based on macroeconometric world models also indicate that the dampening effects of the kind of sharp oil price rises seen recently are substantial. According to these simulations, an increase of US $ 30

[1] Cf. R. Barsky and L. Kilian: 'Oil and the Macroeconomy since the 1970s.' In: *Journal of Economic Perspectives*, vol. 18, no. 4, 2004, pp. 115-134.

[2] With the exception of the USA, where the share of oil consumption accounted for by oil imports has since increased considerably.

Box 1

The oil-price trend

World market prices for crude oil rose again over the course of the year, despite the fact that – according to the International Energy Agency (IEA) – at 1.6% in the first half of this year, consumption expanded at only half the rate seen a year ago (3.3%).[1] The only way to meet the additional demand for crude oil was to further reduce the existing reserve production capacities, which are already extremely low by historical standards (cf. figure 2). In this kind of situation, production disruptions can rapidly lead to sharp price increases. Thus, the price of oil skyrocketed recently following the outages of oil production facilities and refineries in the Gulf of Mexico. But it quickly dropped again as the shortages were met with the help of emergency reserves and the damage proved to be less severe than initially feared.

This year's price rise is surprising in the sense that output has exceeded consumption for over two years now. This circumstance has led to the conclusion in several areas of public opinion that oil is currently over-priced and that the price is bound to fall significantly in the future. But today's price for a storable commodity such as crude oil also depends to a substantial extent on the shortages expected in the future. If market participants were expecting the oil price to drop, then stocks would be reduced and the price would already be under pressure today. Stocks have actually been extremely low on occasion, but they have recently been substantially increased. Clearly, then, an easing of the situation on the oil market is not expected in the near future.

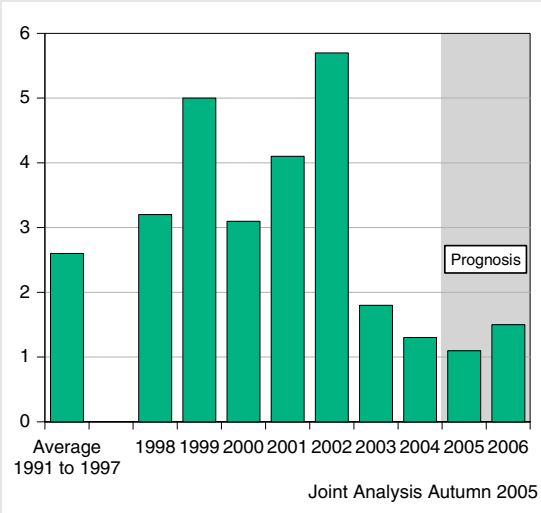
In addition, in view of the meager reserve capacities, the rational approach from the producers' point of view is to safeguard themselves against future price fluctuations by stocking up beyond the levels that have been customary in the past. The Institutes therefore do not expect to see the kind of turnaround in stock dispositions that could lead any time soon to a sharp drop in the price of oil. This assessment is corroborated by the prices prevailing on the futures markets.

It is often claimed that the activities of financial traders, in other words the buying and selling of oil contracts without any actual interest in the commodity itself, are responsible for the high oil prices on the futures markets. In addition, it is argued, this type of speculation exacerbates the volatility of the oil price. There is little to support either claim, however. While it is true that futures and options trading in commodities has increased in recent years, these activities have increased liquidity on the market and have improved the opportunities for enterprises in the oil sector to protect themselves against price risks by selling oil futures. Transactions of this kind usually lead to a reduction in the respective asset risks of both parties, but not to markedly higher prices. At best it can be surmised that – similar to the case of other assets such as property – the substantial amount of liquidity available on the world financial markets has also pushed up prices on the commodities markets.

Figure 2

World Oil Production: Reserve Capacities

Million barrels/day



Sources: U.S. Department of Energy; Energy Information Administration, September 2005; Institutes' calculations; 2005 and 2006: Institutes' forecast.

[1] 'IEA Oil Market Report'. Paris, September 2005.

in the price of oil will curtail output growth in the industrialized countries by around one percentage point within two years.[3]

Nonetheless, since spring 2005, when oil prices were expected to be much lower,[4] there has been practically no downward revision of economic forecasts (not only the Institutes' forecast) for the rise in real GDP. The reasons are multiple:

– The current rise in oil prices is mainly demand driven, whereas the previous oil-price shocks were largely caused by supply shortages.[5] Accordingly, prices did not rise quite as rapidly this time as in past shocks, so that the burden of adjustment was spread out over a longer period of time. Alongside ongoing robust growth in the USA, another factor that contributed to the strong rise in demand for oil

[3] For further details, see the Excursus on p. 383 ff.

[4] The Institutes based their spring forecast on an assumed average oil price of US $ 50 this year and of US $ 48 next year.

[5] For example, the OPEC oil embargo in 1973 to 1974 and production restrictions in the course of the Islamic Revolution in Iran in 1979, the Iran-Iraq War in 1980, and the Iraqi invasion of Kuwait in 1990.

Box 1 continued

Table 1
Global Oil Production and Consumption

		Consumption	Production			Difference	Consumption	Production
			Total	OPEC[1]	Non-OPEC		Change (%) on the previous year	
		(1)	(2)	(3)	(4)	(2) minus (1)	(5)	(6)
		Million barrels per day					%	
2004	I	82.1	82.3	32.2	50.1	0.2	3.8	3.9
	II	80.9	82.5	32.3	50.1	1.6	5.1	5.2
	III	81.7	83.3	33.4	49.9	1.6	4.1	4.9
	IV	83.8	84.2	33.9	50.3	0.4	2.0	3.1
2005	I	83.8	83.8	33.5	50.3	0.0	2.0	1.8
	II	81.9	84.4	34.0	50.4	2.5	1.2	2.3
	III	82.6	84.5	34.3	50.2	1.9	1.2	1.4
	IV	85.6	85.9	34.3	51.6	0.3	2.1	2.0
2006	I	85.4	86.1	34.3	51.8	0.7	1.9	2.7
	II	83.4	86.1	34.3	51.8	2.7	1.9	2.0
	III	84.9	86.3	34.6	51.7	1.4	2.7	2.1
	IV	87.3	86.8	34.8	52.0	–0.5	2.1	1.0
2002		77.7	76.9	28.8	48.1	–0.8	0.4	–0.4
2003		79.2	79.7	30.7	49.0	0.5	1.9	3.6
2004		82.1	83.1	33.0	50.1	1.0	3.7	4.3
2005		83.5	84.7	34.0	50.6	1.2	1.6	1.9
2006		85.3	86.3	34.5	51.8	1.1	2.1	2.0

1 Including Natural Gas Liquids (NGL).
Sources: IEA; 2005 and 2006: HWWA estimates.

The idea that oil prices have been rendered more volatile by the activities of financial traders is not supported by empirical findings, such as those relating to the US futures market in 2003 and 2004.[1] Moreover, at least in the days immediately following Hurricane Katrina that saw the steepest price rises for gasoline, financial traders in the USA were actually selling gasoline on the futures markets, on balance, and were therefore responsible for leveling out prices to some extent.[2] The asset markets can experience isolated long-term cases of excessive price rises that are difficult to blame on market participants' estimations of real shortages or risks. However, it is not easy to find concrete evidence of bubbles of this kind recently forming on the crude oil markets.

The fundamental situation on the oil markets is likely to remain strained over the forecast period (cf. table 1). World oil consumption will probably rise at much the same pace as to date, with the increase once again concentrated in the Asian countries, and especially in China. While an increase in production capacities can be expected on the supply side, the low level of investment for many years in the development of new production facilities suggests that the expansion will not suffice to engender a significant increase in reserve capacities. This view is based on the assumption that oil production in Iraq, which on the latest figures still only amounts to two-thirds of the pre-war volume of 3 million barrels per day, will not increase to any significant degree for the foreseeable future. Given that the risks for significant price fluctuations both upwards and downwards have more or less the same weight, it seems reasonable to base this forecast on the current oil price of around US $ 60.

[1] Cf. Michael Haigh, Jana Hranaiova, and James A. Overdahl: 'Price Dynamics, Price Discovery and Large Trader Interactions in the Energy Complex'. US Commodity Futures Trading Commission Working Paper. Washington, D.C. 2005.

[2] Cf. Testimony of James A. Overdahl, Chief Economist: 'US Commodity Futures Trading Commission Before the Senate Committee on Energy and Natural Resources', September 6, 2005, US Commodity Futures Trading Commission web site: *www.cftc.gov/files/opa/opaoverdahl0105.pdf*.

was the pace of growth in China and other industrializing countries. At the same time, exports from the other countries to the growth centers were boosted, so that the former were able to cope comparatively well with the increase in the price of oil.

– The oil-exporting countries use their additional income on the one hand for imports, which bolsters demand in the oil-importing countries, and on the other for investments on the global capital market, which on trend reduces long-term interest rates.

These stimulatory effects counteract the loss in purchasing power determined by the oil-price rise in the industrialized countries. Their importance has evidently increased compared to the 1970s and 1980s, for the world economy is now much more closely interwoven with respect both to trade in goods and the capital markets.[6] Thus, the negative effect exerted by the oil-price rise on the economies of the oil-importing countries is likely to be somewhat weaker now than in the 1970s and 1980s. The countries of Europe – and especially Germany – are benefiting relatively substantially from the import 'pull' from the oil-exporting countries because they maintain comparatively strong trade relations with them (cf. table 3).

– One important difference with respect to previous oil-price rises is the fact that in the 1970s and also in 1990 the central banks had adopted a restrictive course before the oil prices actually rose so as to prevent the economy overheating and avoid an extremely rapid upsurge in prices. In 2000, too, monetary policy was tightened up appreciably in the industrialized countries in order to counteract an acceleration in inflation rates. Today, by contrast, growth in the industrialized countries is still being supported by extremely favorable monetary parameters. In the euro zone and in Japan, short-term real interest rates (calculated on the basis of the core inflation rate) are still close to zero, while they are also still low in the USA despite the increase in base rates.

– The reaction of wages, prices, and ultimately also monetary policy to the oil-price shocks is utterly different to that in the 1970s and 1980s. In those years, the unions tried to compensate for the loss in purchasing power by pushing through wage increases; as a result they triggered a wage-price spiral. Monetary policy, which was already restrictive, was subsequently tightened up even further. Today, by contrast, wage growth is still extremely moderate, which is why the inflationary pressure in the industrialized countries is still modest, despite a lengthy period of a highly expansive monetary policy and unfavorable impulses from commodity prices. There has also been practically no increase in inflationary expectations to date. They have clearly been reduced for the long term now that the central banks have repeatedly demonstrated their determination over the last two decades to react swiftly and comprehensively to any sustained rise in inflation. Inflationary expectations are probably also being curtailed by the incorporation of new industrial regions into the world economy; China deserves particular mention in this context. This development has led to more intense competition on the goods markets and has significantly restricted the scope for price increases

Table 2

Loss of Purchasing Power in the Industrialized Countries Induced by Oil and Gas Inflation During Phases of Sharp Oil-Price Increases[1]

As % of GDP

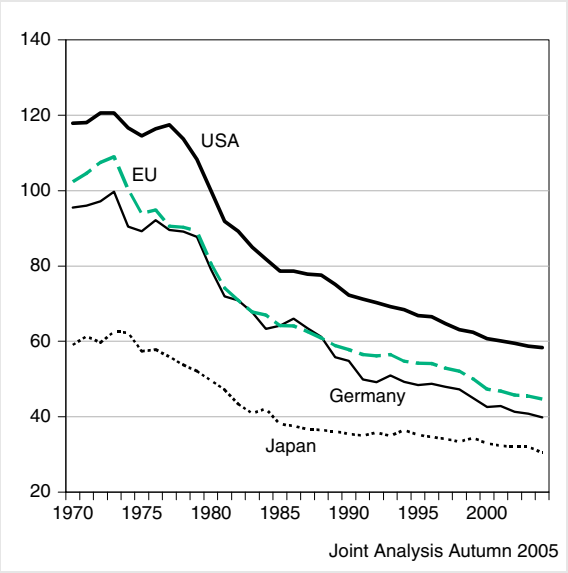
	1973 to 1974	1979 to 1980	1990	1999 to 2000	2003 to 2005
USA	1.5	1.5	0.2	0.8	1.5
Japan	4.4	2.7	0.4	0.8	1.7
EU-15	n.a.	n.a.	n.a.	0.7	1.3
Germany	2.5	2.5	0.5	0.8	1.6

1 Approximated by the change in net imports of oil, oil products, and natural gas as % of GDP.
Sources: OECD; Institutes' calculations.

Figure 3

Oil Intensity[1] of Production in Large Industrialized Countries

1970 to 2004; USA 1980 = 100



1 Oil consumption in barrels per day per unit of real GDP.
Sources: Energy Information Agency; Institutes' calculations.

[6] On this subject, cf. R. Barrell and O. Pomerantz: 'Oil Prices and the World Economy'. NIESR (National Institute of Economic and Social Research) *Discussion Paper,* no. 242. London 2004; German Bundesbank, *Monthly Report,* May 2005; European Central Bank, *Monthly Bulletin,* July 2005.

Table 3

Exports from the Large Industrialized Countries to the Oil-Exporting Countries

	Billion US dollars						As % of GDP	
	2003	2004					2003	2004
		Total	OPEC	Russia	Mexico	Norway		
USA	120.7	139.6	24.3	3.0	110.8	1.6	1.1	1.2
Japan	26.3	33.2	23.8	3.1	5.2	1.1	0.6	0.7
Euro zone	130.6	159.8	82.2	44.3	15.7	17.5	1.6	1.7
Germany	42.1	53.9	22.8	18.6	6.1	6.4	1.7	2.0

Sources: OECD; Institutes' calculations.

for a substantial quantity of tradable goods. This is one of the factors behind the very moderate wage agreements on the labor markets.

– Another reason the dampening effects of the oil-price rise are less visible is because long-term interest rates are still very low and are therefore stimulating economic growth. One of the main factors is the fact that the supply of liquidity has remained very abundant.[7] Another factor that has exerted downward pressure on interest rates has been the reflow of capital from countries with rising current account surpluses – especially China, but increasingly also the oil-exporting countries. The latter are evidently having little difficulty at the moment in 'recycling' revenue from oil sales via the capital markets, unlike the situation following the first two oil-price shocks.
– Finally, world economic growth has also recently been stimulated by the fact that asset prices have risen sharply. This is a consequence of the robust expansion of global liquidity, which is related to the extremely low interest rates seen in recent years. On the one hand, while inflation remained low for goods prices, prices for loans rose sharply world wide. On the other, property prices rose sharply in a range of countries, and specifically in the USA. Favorable financing conditions and the positive effects of the rise in asset prices on the propensity to consume have given a strong boost to growth in the industrialized countries in recent years. This was particularly noticeable in the USA and until recently in Great Britain,[8] but also in some of the EMU countries.

Cautious tightening of monetary policy reins

The acceleration in inflation observed recently at the consumer level has so far mainly been limited to energy products. As long as no change can be expected in this respect, the central banks will probably not raise their interest rates in response to the oil-price rise. The primary concern of monetary policy makers is to avoid an increase in inflationary expectations. Once expectations have risen, correcting them is a long-drawn-out process accompanied by high costs in the form of income and employment losses.

Inflation of asset prices also harbors risks. On the one hand, this inflation can after all spread to the goods markets if the economy is boosted too vigorously by the positive wealth effects. On the other, the rise in asset prices might sooner or later turn out to be a bubble, and when it bursts, the costs at macroeconomic level could also be substantial.[9]

If monetary policy remains expansive for too long, this can also have significant negative effects because there is a risk that the anchor of stable inflationary expectations may be lost. The central banks are likely to start gradually scaling back their expansive course in order to avert this danger.

In the USA, the Federal Reserve has already come a long way towards achieving a neutral level of interest rates. In view of the fact that utilization of productive capacity is practically normal (and that inflationary expectations have recently risen slightly) the Fed will

[7] For a discussion of the trend for long-term interest rates, cf. Association of German Economic Research Institutes: 'The World Economy and the German Economy in the Spring of 2005'. In: *DIW Berlin Weekly Report,* no. 14/2005.

[8] The rise in residential property prices came to a halt in Great Britain over the course of last year when the Bank of England switched to a neutral stance. This adjustment contributed to the substantial cooling down of the economy.

[9] Examples are the situation in Japan in the 1990s and the aftermath of the property boom in eastern Germany.

continue to raise base rates in small steps and will switch to a virtually neutral course over the course of next year. The ECB is likely to begin raising interest rates over the course of 2006, but monetary policy will still remain expansive nonetheless. The Japanese central bank will initially maintain its policy of a zero interest rate. But as growth consolidates and deflation begins to abate, the bank will prepare the markets for a tightening up of monetary policy.

The Institutes also expect long-term interest rates to increase world wide. Thus, the monetary parameters will gradually provide less stimulation for growth.

Fiscal policy neutral next year

The national debt has risen sharply in the industrialized countries in recent years, and so most governments have sought to reduce their deficits this year. The consolidation course pursued in the USA is likely to be interrupted, however, by additional spending on reconstruction following this summer's hurricanes. In most of the other industrialized countries, fiscal policy will tend to be restrictive in 2006. Thus, efforts to consolidate the public budgets will be reinforced to an extent in Japan in response to the improvement in the economy, but the budget deficit will remain substantial.

The necessity for consolidation is considerable in the euro zone and especially in the larger member states, given that their deficit ratios have been exceeding the maximum limit laid down in the Stability and Growth Pact for several years now. But the structural deficit will probably be reduced only slightly here, too. All in all, the effect of fiscal policy in the industrialized countries will be more or less neutral next year.

Outlook: ongoing brisk growth

Given these economic policy parameters, and under the assumption that both oil prices and exchange rates will basically remain constant, world economic growth is likely to proceed at a somewhat slower pace over the forecast period than in the first half of this year. The oil price will continue to hamper growth for some time in the oil-importing industrialized and industrializing countries.

In the USA, the expansion of macroeconomic demand will gradually lose pace. Private consumption, in particular, will decline, for a start because the propensity to save is likely to strengthen again as the rise in property prices is slowed by the interest-rate trend. In Japan, where the adjustment processes in the enterprise and banking sectors are now bearing fruit, macroeconomic output will remain on a decidedly upward trajectory. In the euro zone, the economy will liven up slightly as domestic demand recovers to an extent; investments, in particular, will rise at a faster pace as a consequence of the progress made in the reorganization of the enterprise sector. All in all, however, growth is likely to remain moderate.

The rate of growth for real global GDP will amount to over 3% in 2006 – in other words, much the same as this year (cf. table 4).[10] The regional differences in the pace of expansion will narrow slightly, but the disparities in the balance of payments will remain significant. The Institutes expect inflation to flatten out again over the course of next year, provided that the price of oil does not rise any further. The decisive factor behind this view is the expectation that wage growth, in light of the persisting underutilization of macroeconomic capacities in the industrialized countries, will probably remain moderate.

Risks

This forecast of the world economic trend harbors risks on both sides, and not only because the future of oil prices is uncertain. The economic trend could be more positive if long-term interest rates in the USA remain as unusually low as they are today, despite the tightening up of monetary policy. The slowdown in the price increases for residential property would then probably be weaker than assumed here, and the stimulation of private consumption would continue – albeit at the cost of a greater risk of a setback in future years.

A more genuine risk is the danger that the pace of economic growth might be weaker than forecast here. Thus, the accelerated inflation of recent months as a consequence of the higher price for oil could yet lead to stronger wage growth. This would lead monetary policy makers to tighten the monetary policy reins more sharply than predicted.

The imbalances in the world economy are other ongoing potential sources of danger. The high current account deficit in the USA, which has grown further this year, could become increasingly difficult to finance because a very large share of the portfolios of foreign investors already consists of claims on the US economy. A reduced propensity to invest capital in the USA could lead to a substantial rise in US interest rates, which would constitute a burden for private consumption and investments.

[10] This rate refers to the group of countries listed in table 4, where the growth rates were weighted by 2004 nominal GDP in US dollars. This growth rate is not entirely comparable with other figures on world economic growth – for example, those of the International Monetary Fund – whose weighting is based on purchasing power parities and which also include the rest of the world.

Table 4

Real GDP, Consumer Prices and Unemployment Rates Around the World

	Weighting (GDP) (%)	GDP			Consumer prices			Unemployment rates (%)		
		Change (%) on the previous year								
		2004	2005	2006	2004	2005	2006	2004	2005	2006
EU-25	35.2	2.4	1.6	2.1	2.0	2.2	2.1	9.2	9.0	8.7
Switzerland	1.0	2.1	1.5	2.0	0.8	1.2	0.6	4.4	4.0	3.8
Norway	0.7	2.9	2.8	3.0	0.4	1.9	2.1	4.4	4.3	4.1
Western and central Europe	36.9	2.4	1.6	2.1	1.9	2.0	1.9	8.9	8.7	8.4
USA	32.1	4.2	3.6	3.3	2.7	3.5	3.3	5.5	5.1	4.8
Japan	12.8	2.6	2.3	2.5	0.0	–0.1	0.2	4.7	4.4	4.2
Canada	2.7	2.9	2.9	2.8	1.8	2.3	2.3	7.2	6.8	6.7
Industrialized countries	84.5	3.1	2.5	2.6	1.9	2.3	2.2	7.1	6.8	6.5
Russia	1.6	7.2	6.0	5.5	11.0	13.0	12.0	8.3	8.0	8.0
East Asia[1]	4.7	5.5	4.0	4.5	.	.	.	.	.	.
China	4.5	9.5	9.2	8.5	.	.	.	.	.	.
Latin America[2]	4.7	5.9	4.0	3.5	.	.	.	.	.	.
Newly industrializing countries	15.5	7.0	5.7	5.5	.	.	.	.	.	.
Total[3]	100.0	3.7	3.0	3.1	.	.	.	.	.	.
Memo item: Weighted by exports[4]	100.0	3.1	2.3	2.6	.	.	.	.	.	.
World trade, real	–	8.0	6.5	7.0	–	–	–	–	–	–

1 Weighted average comprising: South Korea, Taiwan, Indonesia, Thailand, Malaysia, Singapore, Philippines. Weighted by 2004 GDP in US dollars. — 2 Weighted average comprising: Brazil, Mexico, Argentina, Columbia, Venezuela, Chile. Weighted by 2004 GDP in US dollars. — 3 Total of countries listed. Weighted by 2004 GDP in US dollars. — 4 Total of countries listed. Weighted by countries' shares in German exports in 2004.

Sources: Eurostat; IMF; OECD; Institutes' calculations; 2005 and 2006: Institutes' forecast.

The possibility of a significant depreciation of the US dollar also cannot be excluded. Resulting higher import costs could rapidly lead to a higher inflation rate, which would induce the Fed to raise base rates more promptly. But if the US economy were to cool down substantially, then the world economy would lose its most important economic engine. Moreover, higher interest rates in the USA would probably produce interest-rate increases in other countries, too, and not least in the industrializing countries, so that macroeconomic growth would be dampened there as well.

USA: gradual slowdown in economic growth

The growth dynamic in the USA has turned out to be extremely robust. Real GDP has continued to grow unwaveringly over the course of 2005 at an annual rate of around 3.5% (cf. figure 4). The expansion of private consumption has slowed down only slightly. Although the increase in energy prices substantially diminished the purchasing power of private households, the loss was almost entirely offset by a further decline in the savings ratio, which was also due in no small part to the rise in property prices.

Investment in residential construction expanded robustly once again, while spending on machinery and software, which had continued to suffer in the first few months of the year following the expiry at the end of 2004 of special tax write-offs for new equipment, has since rapidly increased again.

While export growth accelerated, import growth has recently slowed considerably, so that for the first time in almost two years there was no increase in the import surplus. The hurricanes seem to have had practically no negative impact on the momentum of growth (cf. box 2).

The situation on the labor market has greatly improved once again. However, despite the strong rise in employment over the course of the year, the unemployment rate decreased only slightly because of the simultaneous rise in the number of job-seekers.

Inflation has continued to strengthen significantly, in particular as a result of the higher oil prices; the inflation rate at the consumer level amounted to 3.6% in August. Core inflation,[11] by contrast, has remained

almost constant, amounting to just over 2% since the beginning of the year. However, inflationary expectations recently began to increase.

Against this background, and in light of the steady pace of growth, the Fed raised interest rates again, notwithstanding the uncertainty regarding the economic effects of the hurricanes. In September, the target value for the Federal Funds Rate was raised by another 25 basis points to 3.75%. Thus, the increase since June last year amounts to a total of 275 basis points, and the short-term real interest rate – calculated on the basis of the core inflation rate – has therefore risen. Moreover, the US dollar has appreciated again slightly since the beginning of the year.

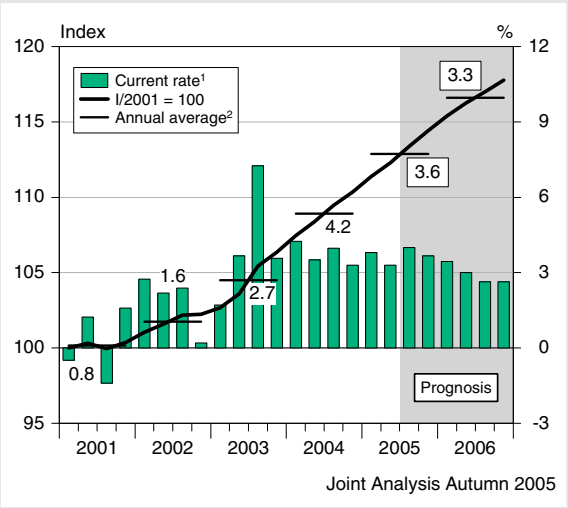
Nonetheless, the monetary parameters will continue to boost growth. In particular, financing conditions on the capital market are still favorable because long-term interest rates have hardly reacted at all to the rise in short-term rates.

The Institutes expect the Fed to continue to raise base rates in small steps until they reach 4.75% by the middle of next year. In view of the strong pace of growth and the high inflationary expectations, long-term interest rates are also likely to rise perceptibly – to over 5%. Then the effect of the monetary parameters will be almost neutral.

Fiscal policy in the fiscal year 2005, which ended on September 30, was slightly restrictive. The unexpectedly hefty reduction in the federal budget deficit – to 2.6% of GDP, compared to around 3.6% the previous year – was due to a sizeable increase in revenue from income tax and corporation tax. And the reduction would have been even larger if not for the expenditure related to September's hurricanes. The government had planned to maintain its restrictive course in the fiscal year 2006. However, it is now doubtful that spending will be reduced as intended. In fact, the defense budget will probably be increased, given that spending on the military interventions in Iraq and Afghanistan has not yet been included in the budget plans. Moreover, substantial additional funds will be allocated for repairs necessitated by the hurricanes. All in all, the deficit is likely to increase to around 3% of GDP in the current fiscal year.

Against the background of less favorable monetary parameters and a significant rise in oil prices, the US economy will lose momentum during the course of the forecast period. Private consumption, especially, will expand at a slower pace. The main reason will be the likely gradual rise in the savings ratio because, as interest rates rise, consumer loans will become more costly and the increase in property prices will weaken.

Figure 4
Real GDP in the USA
Seasonally adjusted



1 Change (%) on the previous quarter, annualized rate (right-hand scale). — 2 Figures: change (%) of the original values on the previous year.
Sources: Bureau of Economic Analysis; Institutes' calculations; from 3rd quarter 2005 onwards: Institutes' forecast.

In addition, real disposable income will expand only moderately due to the rising prices. Investment activity will be dampened by the increase in long-term interest rates and slightly gloomier sales and profitability expectations. On the other hand, exports will be bolstered by improved price competitiveness, while imports will no longer expand as substantially because overall demand will be weaker. The current account deficit will remain high both this year and next year. At the same time, payments by foreign insurance companies for hurricane damages can be expected over the coming months, and this will distort the trend for the current account.

All in all, in 2006 real GDP will increase at more or less its potential rate of growth: 3.3% (compared to 3.6% this year) (cf. table 5). The unemployment rate is likely to decrease only slightly as employment continues to rise. The inflation rate will amount to an average 3.3% in 2006, and thus will be about as high as this year. While the impact of the sharp rise in energy prices will gradually abate, core inflation is likely to increase slightly.

Japan back on track

Real GDP in Japan expanded robustly again in the first half of 2005, following a temporary deceleration over the

[11] The core inflation rate is measured as the rate of change of the Harmonized Index of Consumer Prices (HICP), not including energy and unprocessed foodstuffs

Box 2

The macroeconomic impact of the hurricanes

The Gulf region of the USA was hit by Hurricanes Katrina and Rita at the end of August and end of September 2005, respectively. Official estimates set the damage at around US $ 140 billion, which is many times worse than the damage inflicted by past hurricanes. The consequences for the overall economy are also particularly severe this time because the region concerned is extremely important for national energy supply. The temporary outage of around a quarter of crude oil production in the USA and of a substantial share of refinery capacities led to a momentary dramatic rise in energy and gasoline prices world wide.

The destruction of production facilities was accompanied by significant job loss in the region and therefore a related decline in income. While the first figures available on job loss have proven to be much lower than initially feared (the national unemployment rate rose as a result from 4.9% to 5.1%), it is also certain that not all job losses have yet been recorded by any means. However, the demand for labor will expand again in the course of the damage-repair and reconstruction activities.

The impact of the hurricanes on the public budgets will be significant. One consequence will be income losses, but another, more significant effect, will be substantial public spending on infrastructure repairs and on compensation for non-insured damages. Congress has already approved US $ 62.3 billion for damage repairs relating to the two hurricanes, but the actual sum required to cover the state's total costs will probably be much higher. However, the allocation of the funds will be spread out over several years, and some of the resources will be raised through budget restructuring. All in all, an increase of around US $ 100 billion in the budget deficit can be expected in the fiscal year 2006.

The consequences of the hurricane are likely to influence the macroeconomic trend in the USA in the second half of this year and throughout next year. In the short term, the production losses, on the one hand, and the higher prices for energy and fuel, on the other, will have a negative impact. These two effects will substantially curb private consumption, in particular. It can be assumed that the situation in the energy sector will normalize by the end of the year and that energy prices by then will have fallen again substantially.

In addition, the process of reconstruction will increasingly generate expansive impulses. A part of the additional demand will initially be absorbed by stock reductions and by imports, so that domestic production will not be stimulated in full. On balance, Hurricanes Katrina and Rita will curtail the expansion of macroeconomic output by around 0.3 percentage points in the second half of 2005.[1] Next year, the positive effects on demand are likely to prevail. However, they will still not be strong enough to fully offset the slowdown in the growth of macroeconomic output and demand.

[1] Cf. Congressional Budget Office: 'Testimony before the Committee on the Budget'. Washington, D.C., 6 October 2005.

course of last year (cf. figure 5). Part of the reason was more rapid growth in external demand. In particular, however, domestic demand grew sharply. Private consumption expanded significantly as real incomes rose. Enterprise investments rose at double-figure rates in consequence of greatly increased profits, and also in view of the fact that enterprises have evidently made substantial progress in consolidating their balance sheets. At the same time, the labor market situation also showed a further improvement. The unemployment rate amounted to 4.3% in August and was therefore half a percentage point lower than a year previously.

The deflationary tendencies appear to be gradually abating; the last decrease in the consumer price index was mainly a result of a fall in rice prices. Prices have already been rising at the producer level since the beginning of 2004. In addition, share prices have recovered considerably from their low point in 2003, while property prices recently also began to rise. These developments have helped to bring about a sustained improvement in the situation in the financial sector. Thus, the volume of credit, which had been in decline for many years, is now rising again. As prices rise again slightly over the course of next year, the expansive impact of monetary policy will strengthen.

Against this background, the central bank is likely to gradually trim down the unusually generous supply of liquid funds to the commercial banks. However, it is still likely to maintain its policy of zero interest rates for the present. Fiscal policy, by contrast, will have an increasingly restrictive effect as the efforts to consolidate the public budgets are likely to be reinforced. On the one hand, spending, and especially spending on public investments, will be cut back. On the other, there are signs that the reduction in income-tax rates introduced to boost growth in 1999 will be at least partly reversed again next year.

All in all, economic expansion can be expected to proceed briskly in Japan this year and next year. Growth will continue to be based primarily on domestic demand, private consumption will continue to expand substantially as the labor market situation improves and incomes keep rising, and investments will grow robustly as a result of the improvement in sales and profitability expectations.

Exports, by contrast, will probably grow at a slightly slower pace in view of the somewhat weaker expansion of external demand. Real GDP is likely to grow by almost 2.5% both this year and next year (cf. table 6).

Slight weakening of momentum in industrializing countries

East Asia: robust increase in Chinese output

Once again in 2005, China was the growth center in the East Asian economic area. The growth dynamic in most of the other countries of the region was quite temperate, by contrast. In the smaller economies, the weaker momentum in demand for IT goods, which are particularly important for East Asia, had been noticeable since fall of last year. Trade in these goods has developed more robustly again since the summer, but now the renewed increase in the price of oil is proving to be a burden, especially because the energy intensity of production is extremely high in the industrializing countries of East Asia. The public budgets have been hard hit in many countries, for example in those, such as Indonesia and Malaysia, where crude-oil products have been greatly subsidized.

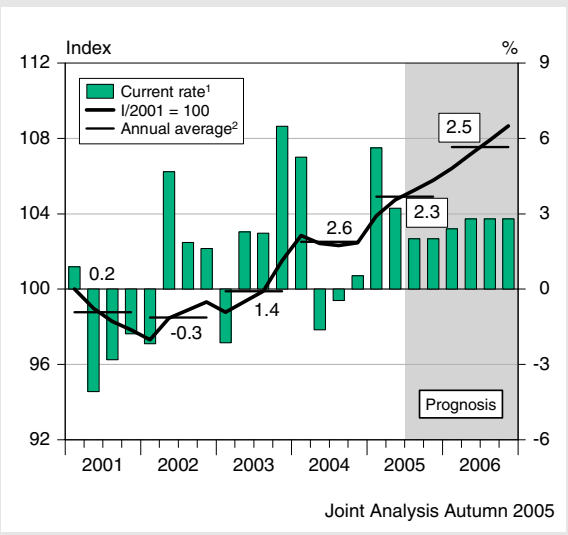
Output growth in China remained robust despite the rise in energy prices. However, there were sizeable displacements on the demand side: While the substantial growth of real exports persisted in the first half of the year, import growth, for example for crude oil and investment goods, weakened considerably. In the latter case, the measures implemented to contain last year's overheated investment growth left their mark. Economic policy makers also succeeded in curtailing the expansion of the volume of credit and of money supply (on the narrow definition), and consumer prices also stabilized as a result. However, to a large extent this was also a consequence of good harvests; foodstuffs are still a very important component of the Chinese consumer's shopping basket.

The dampening measures saved the Chinese economy from overheating, but they exacerbated the imbalance between the internal and the external economy. The current account surplus is currently 6% of GDP. In addition, capital is still flowing into the country in the form of foreign direct investment and speculative finances. The central bank was forced to stock up its currency reserves by another US $ 100 billion in the first half of 2005 so as to maintain a stable exchange rate against the US dollar; this corresponded to around 10% of Chinese GDP in this period. At the same time, far-reaching sterilization measures prevented the monetary base from expanding and for the moment have averted the inflationary risks that go hand in hand with this type of trend.

The abandonment in June of the renminbi's strict peg to the US dollar will do little to remedy the external imbalance for the moment, to begin with because the appreciation of 2.1% against the US dollar was too insignificant to make any difference in this respect (cf. box 3).

The reform of the exchange-rate regime will be significant in the long term, however. Alongside the liberal-

Figure 5
Real GDP in Japan
Seasonally adjusted



1 Change (%) on the previous quarter, annualized rate (right-hand scale). — 2 Figures: change (%) of the original values on the previous year.
Sources: Cabinet Office; Institutes' calculations; from 3rd quarter 2005 onwards: Institutes' forecast.

Table 5
USA: Key Forecast Figures

	2003	2004	2005	2006
	Change (%) on the previous year			
Real GDP	2.7	4.2	3.6	3.3
Private consumption	2.9	3.7	3.5	3.0
Government consumption and investment	2.8	2.2	2.5	2.0
Private capital investments	3.9	11.9	5.6	6.9
Domestic demand	3.0	4.8	3.7	3.4
Exports	1.8	8.4	8.2	7.1
Imports	4.6	10.7	6.8	6.6
External surplus/deficit[1]	–0.5	–0.8	–0.2	–0.3
Consumer prices	2.3	2.7	3.5	3.3
	As % of nominal GDP			
Budget surplus/deficit[2]	–3.7	–3.5	–2.5	–2.8
Balance of payments	–4.7	–5.7	–6.3	–6.3
	As % of labor force			
Unemployment rate	6.0	5.5	5.1	4.8

1 Contribution to growth. — 2 Total government surplus/deficit.
Sources: U.S. Department of Commerce, Bureau of Economic Analysis; Institutes' calculations; 2005 and 2006: Institutes' forecast.

Table 6

Japan: Key Forecast Figures

	2003	2004	2005	2006
	Change (%) on the previous year			
Real GDP	1.4	2.6	2.3	2.5
Private consumption	0.2	1.5	1.8	1.9
Government consumption and investment	–1.9	–0.6	–0.7	–0.6
Private capital investments	1.1	1.5	3.3	3.4
Domestic demand	0.8	1.8	2.0	2.1
Exports	9.1	14.5	6.2	8.1
Imports	3.8	8.9	6.2	5.3
External surplus/deficit[1]	0.6	0.8	0.2	0.5
Consumer prices	–0.2	0.0	–0.1	0.2
	As % of nominal GDP			
Budget surplus/deficit[2]	–7.4	–6.2	–6.1	–5.5
Balance of payments	3.2	3.7	3.5	3.3
	As % of labor force			
Unemployment rate	5.3	4.7	4.4	4.2

1 Contribution to growth. — 2 Total government surplus/deficit.
Sources: Cabinet Office; OECD; Institutes' calculations; 2005 and 2006: Institutes' forecast.

ization measures on the exchange market, it represents another step on the road towards Chinese financial sector's alignment with the international capital markets. The number of large foreign banks with shares in Chinese partner banks indicates confidence in this process.

Macroeconomic activity will diminish only slightly over the forecast period, despite somewhat weaker export growth, as private consumption expands at a slightly stronger pace. Chinese output is likely to increase by over 9% this year and by 8.5% in 2006. Domestic demand will accelerate slightly in the remaining countries of East Asia.

High oil price bolsters Russian economy

Russia is benefiting this year from the prices rises on the energy markets, but the pace of economic growth has slowed nonetheless. Investment growth has not been as substantial as last year, probably in part because private investors were frightened off by the massive interventions by the state in the energy industry. Private consumption also failed to expand quite as rapidly as last year. As domestic demand growth slowed, imports did not increase as robustly as previously. The decline in real exports strengthened significantly, in part as a consequence of the real appreciation of the ruble.

Inflation increased at rates of around 12.5%. It was driven upwards by the fact that the Russian central bank responded to the appreciation of the ruble by buying large quantities of foreign currency. As a result, domestic money supply, and thus also inflationary potential, increased. A large portion of the revenue from oil transactions is skimmed off and channeled into a stabilization fund. At the end of the last fiscal year, the

Box 3

China's new exchange-rate regime

The expansion of China's currency reserves has been indicating for quite some time now that the renminbi is undervalued. Last July, China abandoned the fixed exchange rate that has existed since the 1990s between the renminbi and the US dollar and appreciated its currency by 2.1%. The Chinese central bank has described the new exchange-rate regime as a 'managed floating' system. The external value of the renminbi will be regulated in relation to a basket of currencies, whose individual weighting will not be made known. However, it has been hinted that the US dollar, the euro, the yen, and the Korean won will be the dominant currencies – in accordance with their importance as the currencies of China's main trading partners.[1] The exchange rate's daily fluctuation band against the US dollar will be limited to ±0.3%.[2]

This last regulation means that the renminbi could appreciate by more than 5% against the US dollar within a single month. In actual fact, however, the new exchange rate of around 8.11 yuan renminbi per US dollar has practically remained constant since July,[3] whereas the fluctuations in the exchange rates against the other currencies have been much stronger. At the moment, therefore, China's new exchange rate policy looks much like the old version. The appreciation in July is also too insignificant to noticeably reduce the current account surplus. The only effect for the moment of China's currency policy reform, therefore, has been to expand its room for maneuver; however, it is not clear when and to what extent this room for maneuver will actually be used. Moreover, as a consequence of the Chinese government's currency reform, Malaysia has now also switched from a fixed dollar peg exchange-rate regime to a system of 'managed floating'. The ringit has since been fluctuating much more powerfully against the US dollar than the renminbi.

[1] The currencies of Singapore, Malaysia, Russia, Australia, Thailand, and Canada will also be included in the basket.

[2] The tolerance level for daily fluctuation against the other currencies was set so high that in all likelihood the exchange rates will never reach the maximum fluctuation limits.

[3] It has strengthened by around 0.2% against the US dollar.

government budget therefore showed a surplus of around 5% of GDP.

A much more expansive fiscal policy course is planned for next year. Some of the stabilization fund is to be used for health care, and a massive increase in wages and salaries in the public sector is also on the agenda. Nonetheless, the pace of growth is likely to slow down slightly from 6% this year to 5.5% next year because the strong appreciation of the ruble will reduce the competitiveness of Russian producers.

Weaker upturn in Latin America

The upturn in the Latin American economy has slowed down perceptibly over the course of this year, to an extent because commodity prices (with the exception of energy prices) no longer showed any substantial increase. In addition, inflationary risks damaged the economic climate in many countries. In Brazil, especially, and briefly also in Mexico, the central banks adopted restrictive measures that dampened domestic demand.

Fiscal policy is also geared towards stability in most of the countries, and efforts are continuing to reduce the government budget deficits. Many countries have current account surpluses, partly thanks to the high commodity prices, and foreign currency reserves are increasing appreciably. Nonetheless, the region's foreign debt remains a risk that could rapidly escalate if interest rates rise in the USA and the risk premium for loans from the industrializing countries increases.

All in all, the growth of macroeconomic output in Latin America is likely to slow down slightly. Real GDP will increase by 4% this year and by 3.5% next year. The rise in prices is likely to weaken again slightly in connection with the stability-oriented monetary and fiscal policies.

Excursus: the macroeconomic effects of the oil-price rises – evidence on the basis of macroeconometric models

Macroeconometric models are an important instrument for assessing the macroeconomic effects of changes in the price of oil. They are used to understand and illustrate on the basis of empirical data the impact of rising crude-oil prices on supply and demand in the national economy and also the interdependencies between the two sides of the market. On the supply side, the production of goods becomes more costly in the oil-importing countries as the cost of imported intermediate goods rises. The result, if the higher costs cannot be passed on in full, is a compression of profits, which in turn curtails the propensity to invest. On the demand side, price rises engender a reduction in purchasing power, which results in turn in a weaker growth dynamic. Together these two effects tend to lead to lower output and employment. The models also use estimated or fixed rules regarding the reaction of the social partners to an oil-price shock, for example whether a rise in inflation sets off a wage-price spiral or whether monetary policy makers feel compelled to adopt a more restrictive course as a result of higher inflation. In multi-country models, the recycling of oil monies via the international goods and capital markets is also taken into account, given that these models have modules for the most important industrialized countries and for the group of oil-exporting countries.

Numerous simulations based on such models have been published recently on the impact of the oil-price rise, for example by the OECD, the IMF, and the IEA. So far, the outcomes of these simulations have varied substantially. For instance, an IEA estimation using the OECD Interlink model found that an increase in the price of crude oil by US $ 10 per barrel ($/b) would dampen GDP in the USA by 0.3 percentage points each year for the first two years, but would dampen GDP in the euro zone in each of the first two years by 0.5 percentage points.[12] By contrast, the models used below find that the effect would be stronger in the USA than in the euro zone. The estimation of the impact over time of an oil-price rise also varies. An IMF calculation carried out in 2000 using the MULTIMOD model found that a price increase of 5 $/b in the USA – and of a similar dimension in the euro zone – would reduce growth by 0.3 percentage points in the first year and by a further 0.1 percentage points in the following year.[13] Since spring 2005, the IMF has been basing its estimates on calculations carried out using a more recent version of MULTIMOD, according to which a rise in oil prices by around 30 $/b to 80 $/b would reduce growth in the USA by 0.8 percentage points.[14]

However, the calculations are often difficult to compare because they are based on different assumptions regarding the price of oil and on different exchange-rate scenarios, and because they observe different shocks, presenting the conclusions in some cases as a percentage rise and in others as a price increase measured in US

[12] International Energy Agency: 'Analysis of the Impact of High Oil Prices on the Global Economy'. Paris, May 2004, p. 9.

[13] M. Mussa: 'The Impact of Higher Oil Prices on the Global Economy'. International Monetary Fund Research Department. Washington, D.C., December 2000, p. 18.

[14] A. Allen: 'Oil Market Developments and Issues'. International Monetary Fund Policy Development and Review Department. Washington, D.C., March 2005, p. 24.

dollars. Thus, the findings cannot be interpreted independently of the period concerned. In addition, the policy assumptions underlying the simulations also vary on occasion; moreover, these are not always well documented.

In these models, the role of monetary policy is important with respect to the macroeconomic reaction to the oil-price rise. If monetary policy does not react to the increase in inflation induced by the oil price (i.e., it is 'exogenous'), then real interest rates decrease and investment is stimulated. In some models the change in relative import prices induced by the oil-price rise leads to an excessive decline in imports, which results in turn in only a minor decline in growth. The reason is that these models do not differentiate between core inflation and actual inflation. The resulting reaction is implausible, however, because higher oil prices ultimately lead to a deterioration in the supply conditions. Simulations are also carried out using 'endogenous' monetary policy, in which the central banks react to a rise in inflation by increasing their base rates. They generally adhere to the Taylor rule, although this is likely to do justice only to a limited extent to actual reactions to an exogenous price shock. Thus, the ECB, for example, has stressed that it will only raise interest rates if the oil-price rise leads to recognizable second-round effects.

Whether second-round effects transpire or not basically depends on wages policy. The simulations can be based on the assumption of 'endogenous' wage formation, in which wages react positively to higher inflation. An 'exogenous' wages policy, by contrast, means that wages grow in the same way as they would have without the oil-price thrust. In model calculations with endogenous wage formation, the higher oil price leads, especially in the USA, to significant inflation growth – which seems plausible in view of the higher utilization of labor force potential there compared to the euro zone. Combined with an endogenous monetary policy, the result is a substantial decline in growth.

Generally the findings also vary depending on whether the actors behave with foresight or not. In the case of rational and forward-looking economic units, the short-term effects of a temporary oil-price shock are comparatively weaker because, for example, the shock has a less significant effect on the permanent income of private households.

In the following, the Institutes present their own simulations using two multi-country models: Oxford Economic Forecasting's OEF model, and the National Institute for Economic and Social Research's NiGEM model. The simulations observe the impact of a long-term increase of 30 $/b in the price of crude oil from the beginning of 2006 onwards; the basic solutions of the models are based on the assumption that the price of crude oil will amount to around 54 $/b next year. Each of the calculations are based on the assumption of endogenous monetary and wages policy in a context of autoregressive expectations. Under these assumptions, the impact on inflation of an oil-price rise is much higher in the USA in both models than in the euro zone or Germany, even given a counter-reaction by the central bank. This is probably also due in part to the much higher energy intensity of the American economy. In the euro zone, the price increase already wears off in the third year after the disruption (cf. table 7). Accordingly, both nominal and real interest rates rise at a sharper rate in the USA, which leads to a more severe curtailment of GDP growth. However, these calculations are also based on the assumption that wage policy will behave similarly to previous phases of rising inflation, which is not necessarily the case. The NiGEM model shows higher income losses in general for the USA than the OEF model. The two models indicate similar initial reactions in the euro zone and Germany, but the shock is overcome much more rapidly in the OEF model. It is possible that the NiGEM model would provide effects for the USA that are comparable with the OEF model if it were based on rational expectations. This is at least indicated by the results of the simulations carried out by Barrell and Pomerantz.[15]

Table 7

Macroeconomic Consequences of a 30 $/b Increase in the Price of Oil

Deviation of growth rates from basic solution in percentage points

	GDP			Consumer prices		
	1st year	2nd year	3rd year	1st year	2nd year	3rd year
NiGEM						
USA	–0.1	–0.9	–1.3	+0.9	+1.8	+1.5
Euro zone	–0.3	–0.3	–0.5	+0.7	+0.9	+0.7
Germany	–0.4	–0.4	–0.5	+0.5	+0.3	0.0
OEF						
USA	–0.5	–0.9	–0.8	+1.0	+0.8	+0.5
Euro zone	–0.5	–0.2	+0.1	+0.8	+0.3	0.0
Germany	–0.4	–0.3	0.0	+0.4	+0.2	0.0

Source: Institutes' calculations based on model default settings (OEF model of August 2005; NiGEM Version 305 of July 2005), including endogenous monetary policy rules; NiGEM model incorporates autoregressive expectations.

[15] R. Barrell and O. Pomerantz: 'Oil Prices and the World Economy'. *Discussion Paper,* no. 242 (December 2004), National Institute for Economic and Social Research (NIESR). London 2004, p. 19 ff.

The Economy of the European Union

Slow recovery in the euro zone

The pace of growth in the euro zone is still very slow. In the first half of 2005, domestic demand was dampened by the high oil price, while the effect of the euro's appreciation continued to be felt. There was little further expansion of private consumption. Investment growth remained negligible, although the profit situation is favorable and interest rates are extremely low. Capacity utilization continued to decline, so that there was no decisive upturn in investment activity. Exports recovered during the first half of the year. Demand from the new member states of the European Union and other European countries increased particularly sharply. Exports to the oil-exporting countries, especially Russia, rose appreciably.

The trends for the individual member states remained very diverse (cf. table 8). While real GDP rose

Table 8
Real GDP, Consumer Prices and Unemployment Rates in Europe

	Weighting (GDP) (%)	GDP			Consumer prices[1]			Unemployment rates[2] (%)		
		Change (%) on the previous year								
		2004	2005	2006	2004	2005	2006	2004	2005	2006
Germany[3]	21.4	1.6	0.8	1.2	1.8	2.1	2.0	9.5	9.5	9.3
France	15.9	2.3	1.5	1.8	2.3	2.0	2.0	9.7	9.7	9.5
Italy	13.0	1.2	0.1	1.0	2.3	2.1	2.1	8.0	7.8	7.5
Spain	8.1	3.1	3.2	3.0	3.1	3.3	3.1	11.0	9.6	9.2
The Netherlands	4.7	1.7	0.7	2.5	1.4	1.5	1.0	4.6	4.8	4.6
Belgium	2.7	2.9	1.4	1.9	1.9	2.6	2.1	7.8	8.0	7.8
Austria	2.3	2.4	1.8	2.0	2.0	2.1	1.9	4.8	5.1	5.0
Finland	1.6	4.2	2.8	3.0	3.0	3.4	3.2	10.5	10.0	9.7
Greece	1.4	3.6	1.5	3.2	0.1	0.8	1.4	8.8	8.4	8.1
Portugal	1.4	4.5	4.6	4.8	2.3	2.2	2.1	4.5	4.3	4.1
Ireland	1.4	1.2	0.9	1.7	2.5	2.2	2.4	6.7	7.2	7.0
Luxembourg	0.2	4.5	3.9	4.1	3.2	3.6	2.8	4.8	4.9	4.7
EMU countries[4]	74.3	2.1	1.3	1.8	2.1	2.2	2.1	8.8	8.6	8.4
United Kingdom	16.6	3.2	1.9	2.5	1.3	2.1	1.9	4.7	4.6	4.4
Sweden	2.7	3.6	2.5	2.6	1.0	0.8	1.5	6.3	6.1	5.9
Denmark	1.9	2.4	2.2	2.3	0.9	1.5	1.7	5.4	5.0	5.0
EU-15[4]	95.4	2.3	1.5	2.0	1.9	2.1	2.0	8.3	8.1	7.8
Poland	1.9	5.4	3.3	4.3	3.6	2.5	2.5	18.8	18.1	17.8
Czech Republic	0.8	4.4	4.6	4.2	2.6	1.8	2.2	8.3	8.0	7.8
Hungary	0.8	4.2	3.6	3.7	6.8	3.7	2.0	5.9	6.5	6.2
Slovakia	0.3	5.5	5.0	5.2	7.4	2.8	3.0	18.0	17.5	17.0
Slovenia	0.3	4.6	4.0	4.0	3.6	2.8	2.8	6.0	6.0	5.8
Lithuania	0.2	7.0	6.4	6.5	1.1	2.5	2.3	10.8	10.0	9.5
Cyprus	0.1	3.7	3.5	3.9	1.9	2.5	2.5	5.0	5.0	4.8
Latvia	0.1	8.3	9.0	7.5	6.2	6.5	5.5	9.8	9.2	8.5
Estonia	0.1	7.8	8.0	6.5	3.0	3.7	3.0	9.2	9.0	8.5
Malta	0.0	0.4	1.5	1.8	2.7	2.5	2.5	7.3	6.7	6.4
Accession states	4.6	5.1	4.1	4.4	4.1	2.7	2.5	14.1	13.7	13.4
EU-25[4]	100.0	2.4	1.6	2.1	2.0	2.2	2.1	9.2	9.0	8.7
Memo item: Weighted by exports[5]	100.0	2.7	1.9	2.1	2.4	2.4	2.3	–	–	–

1 EU-15: harmonized index of consumer prices (HICP). — 2 Standardized. — 3 The different growth rates are not entirely comparable because in some countries they have been adjusted for the number of working days, while in others – e.g., Germany – they have not. The working-day effect was particularly strong in Germany in 2004 at 0.5%; thus, purely cyclical growth only amounted to 1.1% in this case. — 4 Total of countries listed. GDP and consumer prices weighted by 2004 GDP in US dollars; unemployment rate weighted by 2003 labor force. — 5 Total of countries listed. Weighted by country's shares in German exports in 2004.
Sources: Eurostat; IMF; OECD; Federal Statistical Office; Institutes' calculations; 2005 and 2006: Institutes' forecast.

again sharply in Spain, Italy made only a slight recovery from recession. And the forces behind economic growth are also very varied. In most cases, growth is borne by domestic demand. In Spain and France, the construction sector still plays an important role, also because property prices are rising sharply.

In Germany and Austria, by contrast, the dominant force is foreign demand. While the external balance is rising in these two countries, it is falling in most of the other EMU countries because of an unfavorable export structure and a decline in price competitiveness compared to the countries of Asia. The difference in the export dynamic is also reflected by divergent trends for industrial output, which is much stronger in Germany and Austria than in the rest of the euro zone.

Employment in the euro zone is continuing to show a slight increase, especially as it is continuing to rise robustly in Spain and in Italy (despite the weak economy in the latter country). Almost all the EU countries are demonstrating significant shifts in their employment structure. The steady and marked decline of employment in industry is being more than offset by employment growth in the private and public service sectors. The unemployment rate changed only insignificantly in the euro zone, amounting to 8.6% in August.

Inflation has recently strengthened. The inflation rate, measured on the basis of the Harmonized Index of Consumer Prices, jumped to 2.6% in September, having amounted to 2% in the preceding months. A large part of the increase can be attributed to the higher energy prices, which rose by 15.2%. The core inflation rate was 1.5% on the most recent figures; its trend reflects the weak growth dynamic, on the one hand, and, on the other, the strong competitive pressure from Asia as a consequence of the liberalization of foreign trade, especially in the textile sector.

Wage growth remained moderate overall. There is no sign of acceleration with respect to negotiated wages. Compensation of employees per employee continued to rise moderately (at around 2%) in the first half of the year. However, the differences between the large countries remained sizeable. While Compensation of employees per employee once again hardly rose at all in Germany, and the increase in Italy was slightly below the average for the euro zone, wage growth amounted to around 3% in France and Spain.

Fiscal policy still almost neutral in the euro zone

This year – like last year – the aggregate public budget deficit for the euro zone will amount to 2.8% of nominal GDP (cf. table 9). The failure of the aggregate deficit to decline, despite the efforts to consolidate the budgets, can be primarily ascribed to the weak economic trend; the structural deficit will actually be slightly reduced.

Table 9

Financial Balance[1] of Public Budget for the EMU Countries

	2002	2003	2004	2005	2006
Germany	–3.7	–4.0	–3.7	–3.5	–3.1
France	–3.2	–4.2	–3.7	–3.2	–3.2
Italy	–2.6	–3.1	–3.1	–3.7	–4.5
Spain	–0.3	0.3	–0.3	0.1	0.1
The Netherlands	–1.9	–3.2	–2.5	–2.3	–2.2
Belgium	0.1	0.4	0.1	–0.3	–0.4
Austria	–0.2	–1.1	–1.3	–2.0	–1.8
Greece	–4.1	–5.2	–6.1	–5.0	–4.1
Finland	4.3	2.5	2.1	1.7	1.8
Ireland	–0.4	0.2	1.3	–0.8	–0.5
Portugal	–2.7	–2.9	–2.9	–6.5	–5.5
Luxembourg	2.3	0.5	–1.1	–1.1	–0.9
EMU countries[2]	–2.4	–2.9	–2.8	–2.8	–2.8

1 As % of gross domestic product; apportionment according to Maastricht Treaty. — 2 Total of countries listed. Weighted by 2004 GDP in euro.
Sources: Eurostat; European Commission; 2005 and 2006: Institutes' forecast.

A reduction in the deficit is unlikely in view of the only modest economic recovery.[16] The three largest economies in the euro zone (Germany, France, and Italy) as well as Greece and Portugal will violate the 3% deficit limit stipulated in the Maastricht Treaty, although the structural deficits in these countries will probably be slightly reduced. All in all, fiscal policy will remain practically neutral.

ECB likely to raise interest rates next year

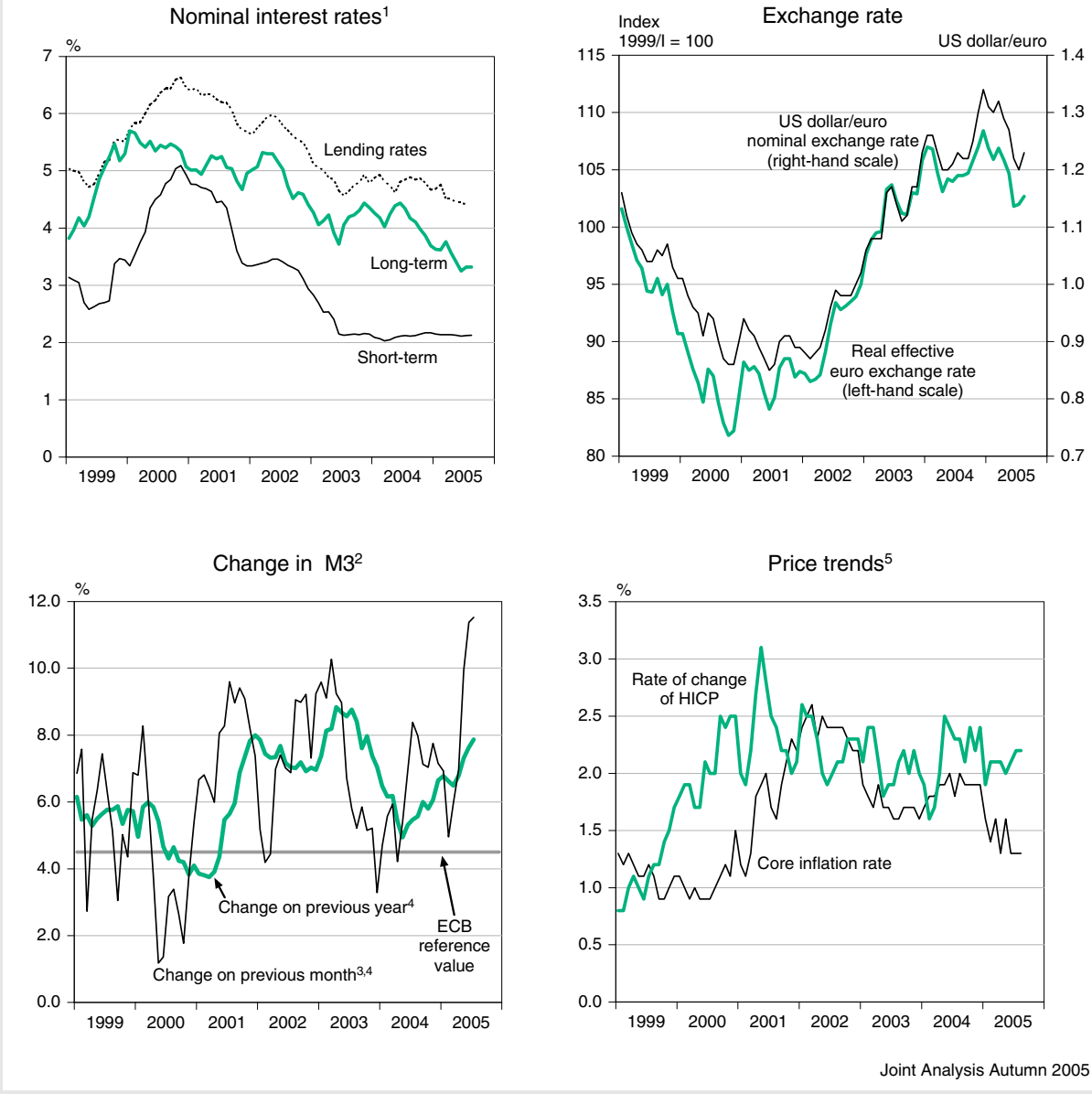
The monetary parameters improved slightly in the euro zone over the past six months. The ECB left base rates untouched at their low level; the minimum bid rate for main refinancing transactions has been 2% for over two years now. In recent months, the interest rate for ninety-day loans has fluctuated only slightly around its current value of 2.2% (cf. figure 6). When deflated by the current core inflation rate,[17] it amounts to 0.9% and is therefore

[16] Possible corrections of what are considered by Eurostat and the European Commission to be erroneous entries in the national accounts are not taken into consideration here. Revisions of this kind have been carried out over the last few years, especially, for example, in the case of Greece.

[17] The core inflation rate is approximated here as the year-on rate of change of the Harmonized Index of Consumer Prices (HICP), excluding energy, foodstuffs, alcohol, and tobacco.

Figure 6

The Monetary Situation in the EMU Countries

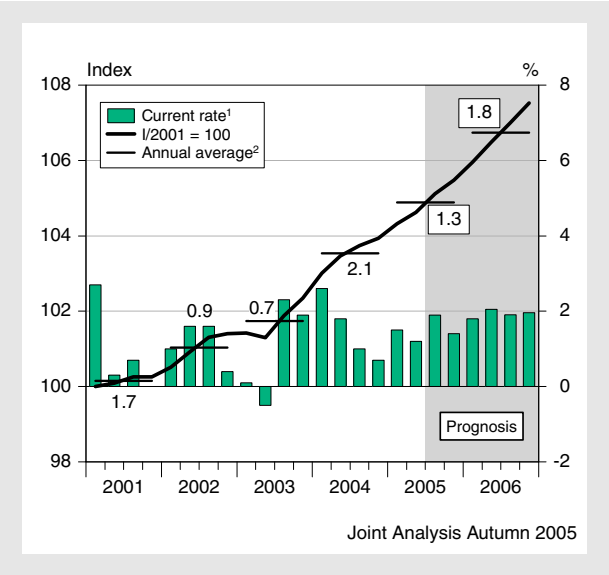


1 Short-term = three-month Euribor; long-term = 10-year government bonds; lending rates = enterprise loans with term of 1 to 5 years; prior to 2003: term of at least one year. — 2 M3 = circulation of notes and coins, daily deposits, deposits with an agreed duration of up to two years; deposits with agreed notice period of up to three months; repo business, money market fund shares and papers; debt securities with maturity up to two years; Index, rates of change (%). — 3 Seasonally adjusted, annualised rate. — 4 Centered three-month moving average. — 5 HICP = harmonized index of consumer prices; core inflation rate = rate of change of HICP, excluding energy, foods, alcohol, tobacco.
Sources: European Central Bank; Eurostat; German Bundesbank; Institutes' calculations.

still discernibly lower than its average for many years. On the most recent figures, interest rates for ten-year government bonds in the euro zone fell by over half a percentage point to 3.2% over the same period. In real terms, capital market interest rates remained at the historically low level of 1.3%.[18] Financing conditions for enterprises have improved further in recent months. Thus, interest rates for enterprise loans[19] decreased by

[18] Long-term inflationary expectations, which are used for deflation, are approximated here using the breakeven inflation rate of the indexed French long-term government bonds.

Figure 7
Real GDP in the Euro Zone
Seasonally adjusted



1 Change (%) on the previous quarter, annualized rate (right-hand scale). — 2 Figures: change (%) of the original values on the previous year.
Sources: Cabinet Office; Institutes' calculations; from 3rd quarter 2005 onwards: Institutes' forecast.

half a percentage point to 4.4% and, according to the Bank Lending Survey, the lending conditions of the commercial banks were relaxed to a greater extent than previously in mid-2005. In addition, the stock markets have continued to recover over the last six months; the EuroStoxx 50-Index rose by almost 10%. The competitiveness of exporters also improved perceptibly in this period because the euro depreciated by 3% in real effective terms; it lost almost 7% in nominal terms against the US dollar.

The expansion of M3 money supply accelerated substantially over the course of the last six months. The rate of increase last amounted to 11.5% (three-month average of the annualized change on the previous month), and thus significantly exceeded the ECB reference value of 4.5%. The more liquid M1 aggregate actually rose at a rate of 15.8%. Open-account loans to the private sector also expanded much more rapidly in recent months, most recently at a rate of 10.7%; this applies to loans both to private households and to non-financial joint-stock companies. All in all, the monetary parameters are favorable compared to the past.

As a result of the sharp rise in oil prices, the inflation rate will exceed the maximum limit for price stability – as defined by the ECB – both this year and next year. However, the rate will probably be only slightly off target. Thus, there is no need for the ECB to respond immediately. However, the acceleration in money supply growth, which has persisted since mid-2004, is indicative of risks to price stability in the medium term.

The Institutes therefore believe that the ECB is likely to raise base rates in the euro zone in the course of 2006 by a total of half a percentage point. Capital market interest rates will also rise as the short-term rates increase. The euro is expected to depreciate marginally in real effective terms over the forecast period. All in all, the monetary parameters will become slightly less favorable.

Outlook

The economy in the euro zone will strengthen only slightly up to the end of this year (cf. figure 7). The oil-price rise of recent months will continue to curb private demand for some time to come; accordingly, consumer confidence has remained depressed to date. The mood in industry has improved slightly, by contrast, not least thanks to an increase in the volume of incoming orders. The depreciation of the euro this year and the low long-term interest rates will provide an additional positive impetus. All in all, real GDP is likely to rise by 1.3% this year.

The dampening effects of the oil-price rise will gradually abate next year. Private consumption will then expand slightly as employment continues to slowly increase.[20] Foreign trade is likely to make a positive contribution to growth once again, given that the euro zone's price competitiveness has recently improved. Investments will also benefit as a result (cf. table 10).

All in all, GDP in the euro zone can be expected to increase by 1.8% in 2006. The unemployment rate is likely to decrease only marginally. Inflation will fall slightly over the course of next year as the price of oil remains stable. Following a rate of 2.2% this year, next year's annual average inflation rate will amount to 2.1%.

Slower momentum in Great Britain

The expansion of the economy in Great Britain still remains moderate following the slowdown last year. Real GDP rose by an annualized rate of only 1.5% – the weakest increase since 2001.

[19] Interest rates for loans of up to one million euro to non-financial joint-stock companies with the interest rate initially fixed for one to five years.

[20] Tax cuts are planned in Belgium, which will further boost demand.

The marked slowdown was primarily a result of modest private consumption growth. In view of only a weak increase in property prices and a substantial increase in the interest burden, private households were evidently trying to reduce their burden of debt, which had increased to around 150% of disposable income on the most recent figures. This led to a sharp rise in the savings ratio. But investments also grew only weakly, despite the improved profit situation for enterprises.

On the basis of the moderate pace of economic growth, the Bank of England provisionally reduced interest rates by 25 basis points to 4.5%. However, at 2.4%, the inflation rate (measured in terms of the consumer price index) now significantly exceeds its target value. Given that consumer confidence has also improved again, the central bank is likely to refrain from further interest-rate reductions for the present. The deficit in the public budgets will probably not be reduced, especially because of the weak growth rate. It is doubtful that austerity measures – especially those with a view to fulfilling the 'golden rule'[21] – will be implemented next year because the planned comprehensive spending review has been postponed to 2007. The Institutes expect fiscal policy to remain slightly expansive for the time being.

Under these conditions, real GDP in Great Britain is likely to rise at a somewhat stronger pace again over the forecast period. Given that the rise in disposable income will not be dampened by tax increases as it was last year, private consumption is likely to boost itself again if the savings ratio once again rises slightly. Investment by enterprises will probably increase at only a moderate rate for the present because their level of indebtedness is still very substantial compared to the past. Foreign trade is likely to benefit increasingly from the comparatively low rise in unit labor costs.

All in all, the Institutes expect GDP to increase by 1.9% this year and by 2.5% next year. The unemployment rate will fall only slightly. The inflation rate is likely to amount to 2.1% this year as a result of the high oil price, and is likely to decrease to 1.9% in 2006.

Slightly stronger growth in the new member states

The pace of economic growth accelerated slightly in the new member states of the EU in the first half of 2005, having slowed down markedly in the second half of 2004. The slowdown was particularly conspicuous in Poland. The current acceleration is accompanied by a shift among the demand components. The external economy has now made a larger contribution to output growth in almost all countries. Although the pace of export growth slowed down slightly once the special economic situation determined by EU entry wore off and also as a consequence of the weaker pace of world economic growth, import growth also diminished substantially at the same time; the balance of trade improved in most countries. The decisive factor behind the curtailment of imports was the weaker trend for domestic demand – except in Slovakia. Investments, which grew particularly dynamically last year, have increased only moderately since the beginning of the year, although the growth rate has recently accelerated to some extent. Public-sector investments expanded perceptibly in some countries, not least thanks to EU subsidies. Private consumption lost momentum, especially in Poland.

The basic trend for price growth is relatively weak; inflation rates have fallen significantly in most of the countries. Although energy prices rose sharply in the new member states, too, in some cases these were offset by an appreciation of the local currency. The expiry of the basis effect of the tax harmonization in the course of

Table 10
EMU Countries: Key Forecast Figures

	2003	2004	2005	2006
	Change (%) on the previous year			
Real GDP	0.7	2.1	1.3	1.8
Private consumption	1.0	1.4	1.1	1.2
Government consumption	1.5	1.1	1.1	1.7
Gross fixed capital formation	0.7	1.3	1.0	2.3
Domestic demand	1.4	1.7	1.5	1.7
Exports[1]	0.7	6.0	3.6	5.6
Imports[1]	2.7	6.1	4.2	5.5
External surplus/deficit[2]	–0.7	0.1	–0.2	0.2
Consumer prices[3]	2.3	2.1	2.2	2.1
	As % of nominal GDP			
Budget surplus/deficit[4]	–2.9	–2.8	–2.8	–2.8
Balance of payments	0.3	0.7	–0.2	0.0
	As % of labor force			
Unemployment rate[5]	8.7	8.8	8.6	8.4

1 Including intra-EMU trade. — 2 Contribution to growth. — 3 Harmonized index of consumer prices (HICP). — 4 Total government surplus/deficit. — 5 Standardized.
Sources: Eurostat; European Central Bank; Institutes' calculations; 2005 and 2006: Institutes' forecast.

[21] Under the government's 'golden rule' strategy, the only debts incurred during the business cycle should be those used to finance investment. The Treasury believes the current cycle will last until 2006 (cf. HM Treasury 2005).

EU accession has also had an impact, which is estimated – depending on the country – to amount to between 1 and 2 percentage points. In Latvia and Estonia, the inflation rate has not yet fallen permanently because of the strong growth dynamic.

The pace of growth will strengthen further over the forecast period. The average growth rate for real GDP will be lower in 2005, however, than in 2004. Private consumption will rise robustly, by contrast, as real income increases. In some countries, e.g. Hungary, fiscal policy will also provide positive impulses next year. Investments will rise again at a stronger rate, especially in Poland and Hungary, where monetary policy was relaxed over the course of 2005.

Exports will rise at an accelerated rate in tandem with the economic recovery in western Europe so that the balances of trade are likely to improve slightly in general. There will be little change in the inflation rate, which will fall perceptibly only in Hungary because of the planned reduction of value-added tax. Employment will increase only slightly in most countries, despite the favorable economic momentum. The unemployment rate will decline somewhat, however, as unemployed people increasingly withdraw from the labor market.

The question that will arise next year is whether some of the countries fulfill the prerequisites for entry into EMU. The second year of membership in ERM II will come to an end in summer 2006 for Estonia, Lithuania, and Slovenia. One condition for entry into the euro zone is that the exchange rate fluctuates only comparatively weakly around the central parity rate during this period. According to the present forecast, all three countries are likely to fulfill both this criterion and the other four nominal convergence criteria; however, there is a risk that Estonia's inflation rate will exceed the reference value.

The German Economy

Overview

The pace of economic recovery still remains very sluggish in Germany. After a modest beginning in mid-2003, the upturn became bogged down again after only a year. First export growth slowed as a result of the euro's appreciation and the weaker pace of world economic growth, and then German growth was curtailed by the high energy prices. Real GDP rose by only 0.6% between mid-2004 and mid-2005, while capacity utilization is currently lower than a year ago.

The German economy is still characterized by imbalances. It is kept alive by impulses from abroad, but these have spread only to a limited extent to the domestic economy, and the good business situation for exporters has not yet been reflected in higher employment at macroeconomic level. Real domestic demand has been more or less stagnant for the past year. The decisive factor here is the dampening effect exerted by the high energy prices. Private consumption has remained weak as the purchasing power of private households has diminished. The decline in construction investments has persisted. One bright spot on the horizon are investments in machinery and equipment, which showed a positive trend in the first half of 2005.

The labor market situation has remained poor against this background of sluggish growth. While the number of employed, which had fallen momentarily, has risen significantly again since the spring, this increase was based exclusively on the effects of labor market policy instruments. For example, additional 'supplementary jobs' (known as 'one-euro jobs') were made available. The number of employed people subject to compulsory social insurance, by contrast, has remained in visible decline. At the same time, there has been a substantial increase in the number of unemployed. While the sharp rise at the beginning of the year was primarily a consequence of the addition of social welfare recipients who are fit for work to the unemployment register (these were previously not registered as unemployed), even without an adjustment for this effect unemployment would have continued to rise in 2005.

The Institutes expect a somewhat more lively recovery over the forecast period, but there is no indication that Germany will enjoy vibrant growth. As pointed out in the World Economy section of this forecast, the global economy will remain healthy. The German economy is likely to benefit in particular because it has become more price competitive thanks to the depreciation of the euro and, especially, thanks to the significantly improved cost situation for enterprises. All of these factors suggest that exports will continue to expand robustly and bolster the economy in Germany. The sharp rise in incoming orders from abroad at the beginning of the summer leads the Institutes to expect a perceptible increase in the second half of the year, in particular. Exports are likely to lose some momentum over the course of the coming year, however, as world growth proceeds at a somewhat slower pace.

The economy will continue to receive support from monetary policy, while fiscal policy will persist in its efforts to reduce the structural budget deficit. Wage growth is likely to remain only moderate, which will tend both to strengthen Germany's competitive position on international markets and to boost employment. On the other hand, the rise in the price of crude oil and the resulting price increases for other energy sources will reduce the purchasing power of private households, so that the prospects for real income and domestic demand will initially remain gloomy. Real GDP is likely to rise by an annual average 0.8% in 2005 (cf. table 11).

Domestic demand will expand to some extent next year. Machinery investments, especially, are likely to increase somewhat more rapidly as both sales expectations on the foreign markets and financing conditions

Box 4

Assumptions underlying the forecast

This forecast is based on the following assumptions:

- A barrel of crude oil (Brent) will cost an average US $ 55 this year; next year the price of oil will fluctuate around the current level of US $ 60.
- World trade will expand by 6.5% this year and by 7% next year.
- The dollar/euro exchange rate will amount to US $ 1.20 per euro over the forecast period. The German economy's price competitiveness will improve slightly.
- The European Central Bank will leave its main base rate unchanged at 2% this year and will raise it by 50 basis points over the course of 2006. Capital market rates will rise slightly.
- Negotiated hourly wages will increase by 1.2% on overall average this year and by 1.5% next year.
- Given that the new German government's policy agenda is not yet available, the Institutes have only taken into consideration those measures that have already been decided (economic policy status quo).

Table 11
Key Forecast Figures for Germany

	2002	2003	2004	2005	2006
Gross domestic product[1]					
change (%) on the previous year	0.1	–0.2	1.6	0.8	1.2
Western Germany	0.0	–0.2	1.6	0.8	1.2
Eastern Germany[2, 3]	0.7	0.2	1.5	0.3	0.9
Labor force[4](in 000s)	39 096	38 722	38 868	38 940	39 185
Unemployed (in 000s)	4 061	4 377	4 381	4 875	4 755
Unemployment rate[5] (%)	9.4	10.2	10.1	11.2	10.9
Consumer prices[6]					
change (%) on the previous year	1.4	1.1	1.6	2.1	2.0
Unit labor costs[7]					
change (%) on the previous year	0.8	0.7	–0.9	–0.9	–0.2
Public sector financial balance[8]					
Euro billion	–79.6	–86.6	–81.2	–78.5	–70.5
As % of nominal GDP	–3.7	–4.0	–3.7	–3.5	–3.1
Balance of payments (euro billion)	48.2	45.2	83.5	85.0	95.0

1 At previous year's prices. — 2 Including Berlin. — 3 As at August 2004/February 2005; at 1995 prices. — 4 Domestic. — 5 Unemployed as % of domestic labor force (place of residence concept). — 6 Consumer price index (2000 = 100). — 7 Compensation of employees per employee created in the domestic economy as % of GDP at previous year's prices per member of labor force. — 8 On national accounting definitions (ESNA 95); the calculation takes account of 'reduced expenditure' resulting from the sale of asset-backed securities from the Postal Workers' Pension Fund.
Sources: Federal Statistical Office; Federal Labour Office; Federal States' Working Group on ESNA; German Bundesbank; 2005 and 2006: Institutes' forecast.

remain favorable and the profit situation of many firms improves. However, the upturn in investment activity will be only moderate as capacity utilization remains low in the sectors that target the domestic market; there will be little additional investment in these sectors. The dampening influence of the high energy prices on private consumption is likely to abate over the course of 2006. In addition, employment prospects will brighten up to some extent. Consumption spending will therefore improve slightly again over the course of the year and bolster the economy to some extent. The somewhat slower pace of export growth will probably be slightly more than offset by the growth in domestic demand, with the result that the recovery will gain ground. Real GDP will grow by 1.2% in 2006.

This pace of expansion will not be sufficient to bring about a radical change on the labor market. However, the number of insured employed, at least, is likely to increase slightly in the second half of next year – for the first time since the end of 2000. While unemployment will continue to fall, the decline will be based to a large extent on the provision of additional 'supplementary jobs' for persons in receipt of the new Unemployment Benefit II (ALG II). An average 4.76 million people will be registered unemployed in 2006, compared to 4.88 million this year.

Inflation will gradually subside over the course of next year as prices stabilize on the international energy markets. However, at an annual average 2.0%, consumer prices will rise at much the same rate as this year.

All in all, growth in Germany still depends to a huge extent on international stimuli. Thus, in mathematical terms, this year's increase in real GDP corresponds more or less to the rise in the external balance; next year the external balance will account for two-thirds of growth. Because the pace of domestic demand growth will not be very strong in 2006, either, even minor external disruptions could thrust the Germany economy back into a state of near-stagnation. Thus, a further sharp rise in energy prices would considerably impede growth in Germany, given that it would also increase the risk of the world economy entering into difficult waters.

Another uncertainty underlying the forecast is the fact that it is still not easy to estimate the economic policy intentions of the new German government. This forecast is based on the assumption of an economic policy status quo. If far-reaching reforms are agreed and rapidly implemented, then the prospects for the medium term will improve, and the effects might already be seen in 2006.

Individual trends

External demand bolsters growth

Following a period of stagnation in the second half of 2004, exports have again gained significantly in momentum this year. The German economy profited compared

Box 5

Revision of the spring 2005 forecast

This forecast is not entirely comparable with the spring forecast. In spring, the Institutes had reported the trend for real GDP in terms of the prices of a fixed base year. On April 28, 2005, the Federal Statistical Office switched to a new procedure and began presenting real GDP in reference to a yearly changing price basis (cf. box 6). This adjustment was accompanied by other conceptual innovations such as increased use of hedonic price indices and a new booking procedure for indirectly measured services provided by financial intermediaries (FISIM). Compared to the data provided in the past by the Federal Statistical Office, these changes have increased the growth rate for real GDP between 1991 and 2004 by an average 0.2 percentage points (1.5% against 1.3%); the rates of change for the individual years are up to 0.4 percentage points higher than the values reported to date.[1] The rates of change for the quarterly values of real GDP – both compared to the previous year and compared to the previous quarter – are also generally higher than those calculated prior to the adjustment. However, the overall economic picture has not changed substantially.

According to the current estimate, the moderate rise in macroeconomic output forecast in spring 2005 is still likely to materialize. In the spring forecast, a real growth rate of 0.7% was predicted for this year. Now the increase in GDP is estimated at 0.8% (cf. table 12). Exports are expanding at a somewhat more dynamic pace than expected because the euro has depreciated further against the US dollar. At the same time, the growth rate for imports will be weaker; the change in the external balance will now contribute 0.9 percentage points to output growth (spring forecast: +0.4 percentage points). The trend for domestic demand, by contrast, will be less favorable than forecast in the spring; this is now actually expected to make a negative contribution to growth (–0.1 percentage points; spring forecast: +0.3 percentage points). The decline in construction investments will be more substantial than expected. According to the new forecast, private consumption will decrease as a consequence of the renewed oil-price rise.

[1] Cf. A. Braakmann et al.: 'Revision der Volkswirtschaftlichen Gesamtrechnungen 2005 für den Zeitraum 1991 bis 2004.' In: *Wirtschaft und Statistik*, 5/2005, p. 426.

Table 12

Forecast and Deviations from Forecast for 2005

Real GDP expenditure

	Spring report		Autumn report		Deviations from forecast for 2005	
	Estimated figures for 2005[1]		Estimated figures for 2005[2]			
	Change (%) on the previous year	Contribution to growth in percentage points[1]	Change (%) on the previous year	Contribution to growth in percentage points[1]	Difference between contributions to growth in percentage points	
	(1)	(2)	(3)	(4)	(3) minus (1)	(4) minus (2)
Domestic demand	0.4	0.3	–0.1	–0.1	–0.5	–0.4
Private consumption	0.4	0.2	–0.5	–0.3	–0.9	–0.5
Government consumption	–0.1	0.0	–0.8	–0.2	–0.7	–0.2
Machinery and other equipment	3.8	0.3	3.8	0.3	0.0	0.0
Construction	–2.2	–0.2	–4.9	–0.5	–2.7	–0.3
Change in stocks	–	0.0	–	0.5	–	0.5
External balance	–	0.4	–	0.9	–	0.5
Exports	4.1	1.7	5.9	2.2	1.8	0.5
Imports	3.8	–1.3	4.2	–1.4	0.4	–0.1
Gross domestic product	0.7	0.7	0.8	0.8	0.1	0.1
Memo item:						
GDP USA	3.5	–	3.6	–	–	–
GDP EMU countries	1.4	–	1.3	–	–	–
World trade	7.0	–	6.5	–	–	–
Consumer price index	1.7	–	2.1	–	–	–

1 At 1995 prices. — 2 At previous year's prices. — 3 Contributions of demand components to change in GDP (Lundberg components). A demand component's contribution to growth is given by the growth rate weighted with the aggregate as a share of the previous year's GDP (spring forecast: real share, autumn forecast: nominal share). Figures may not sum due to rounding. GDP: change (%) on the previous year.
Sources: Institutes' calculations.

Table 13

Foreign Trade Indicators[1]

	2001	2002	2003	2004	2005	2006
	Change (%) on the previous year					
Real exports[2]	6.4	4.2	2.4	9.3	5.9	6.5
Goods	6.3	3.5	3.0	10.0	6.2	6.6
Services	7.6	9.1	–1.2	5.1	3.7	5.7
Real imports[2]	1.2	–1.4	5.1	7.0	4.2	5.1
Goods	0.3	–0.3	6.6	8.2	5.3	5.6
Services	4.7	–4.9	–0.1	2.7	0.1	3.2
Terms of trade	–0.1	2.1	1.1	–0.2	–1.5	–1.3
	Euro billion					
Memo item:						
Nominal net exports	42.5	97.1	87.6	109.5	117.7	127.1
Balance of payments[3]	3.3	48.2	45.2	83.5	90.0	100.0

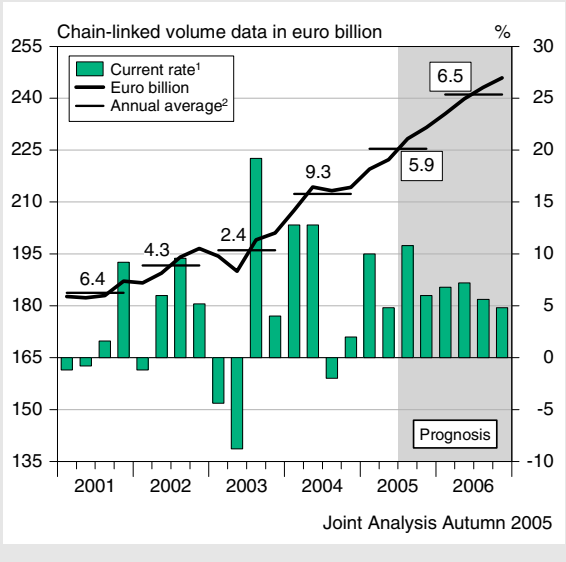
1 On national accounting definitions (ESNA 95). — 2 At previous year's prices. — 3 On balance of payments statistics definitions.
Sources: Federal Statistical Office; German Bundesbank; Institutes' calculations; 2005 and 2006: Institutes' forecast.

to the rest of the euro zone – the destination for almost half of all German exports – from the ongoing improvement in its competitiveness as a consequence of the relatively low increase in prices and costs; exports to the euro zone expanded again perceptibly. Exports to the new EU member states have increased again since fall of last year. There was a very substantial increase in sales to the OPEC countries, where demand has risen considerably as a result of the sharp growth in revenue from oil sales. Exports to the USA, which had been in slight decline until well into the second half of 2004 – in large part because of the euro's appreciation – expanded again moderately in the first half of this year. Sales to Asia (and especially to China) fell, by contrast, having previously risen at an unusually brisk pace.

Figure 8

Real Exports

Adjusted for seasonal fluctuations and working days

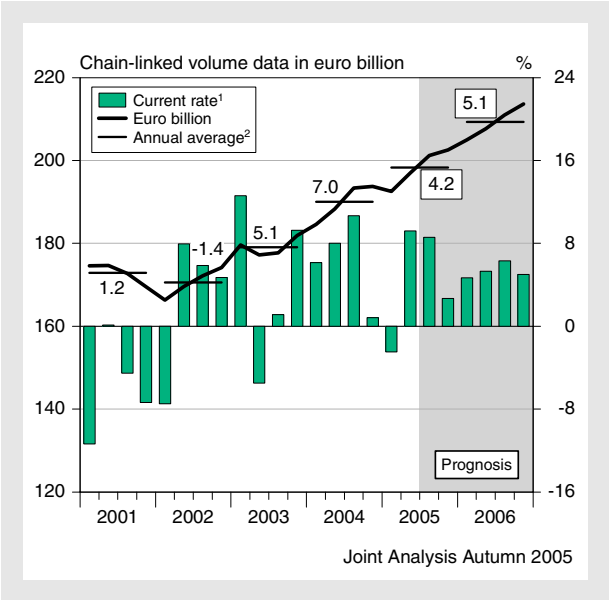


1 Change (%) on the previous quarter, annualized rate (right-hand scale). — 2 Figures: change (%) of the original values on the previous year.
Sources: Federal Statistical Office; Institutes' calculations; from 3rd quarter 2005 onwards: Institutes' forecast.

Figure 9

Real Imports

Adjusted for seasonal fluctuations and working days



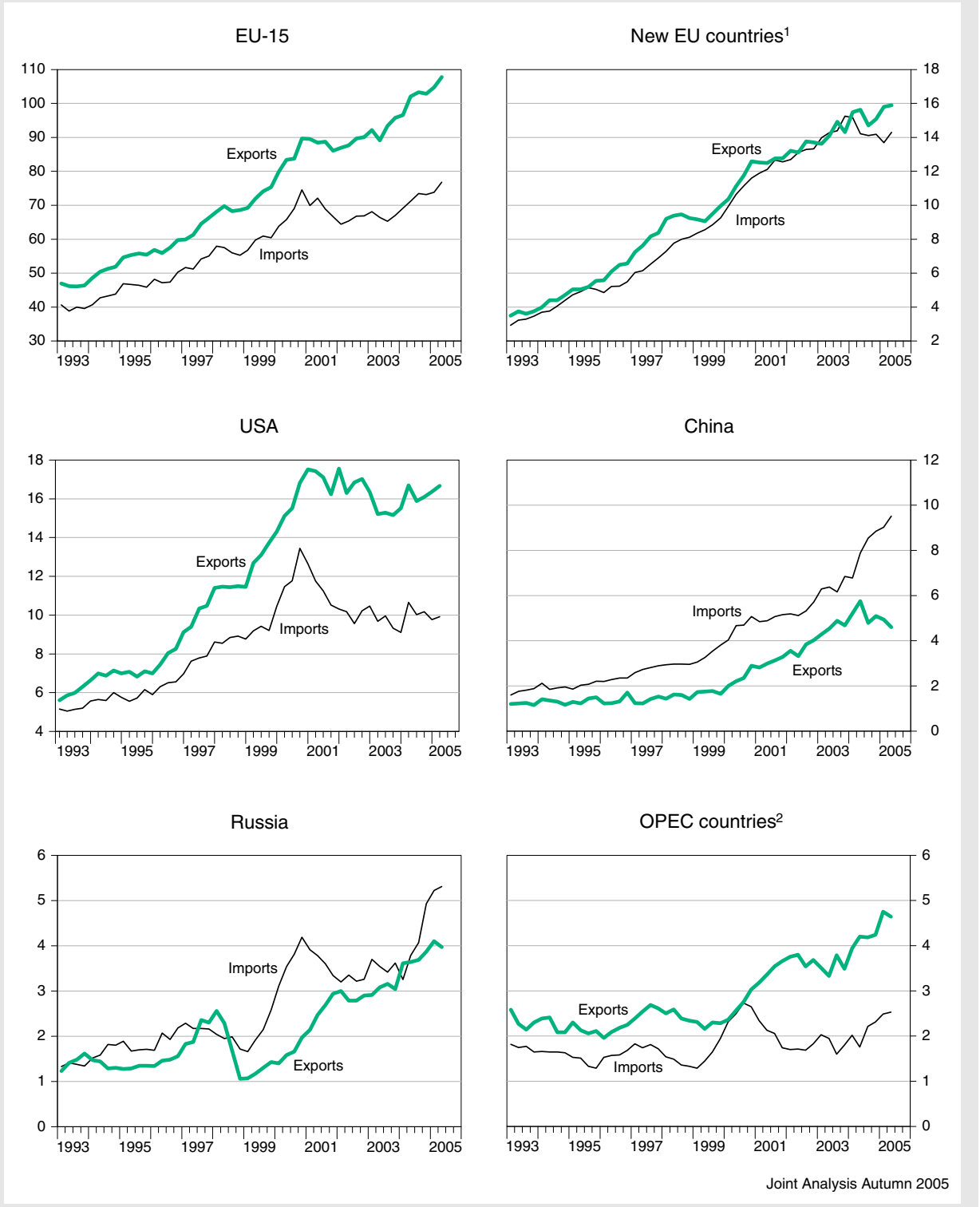
1 Change (%) on the previous quarter, annualized rate (right-hand scale). — 2 Figures: change (%) of the original values on the previous year.
Sources: Federal Statistical Office; Institutes' calculations; from 3rd quarter 2005 onwards: Institutes' forecast.

Given that the world economy will grow robustly over the forecast period and that investments, in particular, will increase significantly, substantial demand shocks can be expected from abroad. Moreover, following its peak period in the winter of 2004/2005, the euro has now depreciated again substantially, so that Germany's price competitiveness has also improved compared to the dollar zone. The rise in costs and prices has remained low in Germany compared to other countries, and this will strengthen the German economy's competitiveness in the euro zone. All of this suggests that exports will rise again substantially over the forecast period, even if the pace of export growth will gradually slow as a result of the slightly more relaxed pace of world growth. All in all, real exports are likely to increase by 5.9% this year and by 6.5% next year. They

Figure 10

German Exports by Country and Region

Special trade; seasonally adjusted quarterly values in billion euro



1 Poland, Hungary, Czech Republic, Slovakia, Slovenia, Estonia, Latvia, Lithuania, Malta, Cyprus. — 2 Algeria, Libya, Nigeria, Venezuela, Iraq, Iran, Saudi Arabia, Kuwait, Qatar, United Arab Emirates, Indonesia.

Sources: Federal Statistical Office; Institutes' calculations.

Table 14

German Exports by Region

Nominal exports (special trade)

Country group	2003			2004			2005		
	Euro billion	Share (%)	% of GDP[1]	Euro billion	Share (%)	% of GDP[1]	Euro billion	Share (%)	% of GDP[1]
EU-25	423.6	63.8	19.6	468.6	63.9	21.1	246.1	64.4	22.4
of which: euro zone	288.7	43.4	13.3	319.0	43.5	14.4	169.1	44.2	15.4
new EU countries[2]	56.5	8.5	2.6	61.4	8.4	2.8	31.8	8.3	2.9
NAFTA[3]	71.4	10.7	3.3	74.6	10.2	3.4	38.5	10.1	3.5
East Asia[4]	54.6	8.2	2.5	60.5	8.2	2.7	29.3	7.7	2.7
of which: China	18.3	2.7	0.8	21.0	2.9	0.9	9.5	2.5	0.9
Others	114.9	17.3	5.3	129.8	17.7	5.9	68.3	17.9	6.2
Total	664.5	100.0	30.7	733.5	100.0	33.1	382.3	100.0	34.7

1 As % of nominal GDP. — 2 Poland, Hungary, Czech Republic, Slovakia, Slowenia, Estonia, Latvia, Lithuania, Malta, Cyprus. — 3 USA, Canada, Mexico. — 4 Japan, China, Hong Kong, Taiwan, Singapore, Thailand, Indonesia, Malaysia, Philippines, South Korea.
Sources: Federal Statistical Office; Institutes' calculations.

will thus remain the linchpin of economic growth in Germany.

Imports rose again in the spring, following a brief period of weakness at the beginning of the year. Given the high import content of exports, imports are also indirectly boosted by the lively demand from abroad. The conspicuous increase in imports of investment goods reflects the fact that propensity to invest has consolidated in Germany. Demand for foreign consumer goods has increased slightly over the course of this year, despite the persisting weakness of private consumption. In particular, imports of low-priced consumer goods from Asia and the new EU member states are likely to have increased. Imports of energy sources also increased perceptibly, in terms of volume, despite the sharp price increases. Clearly, stocks have been built up in expectation of a further rise in prices.

As exports continue to rise rapidly and investment activity livens up in Germany, imports will also continue to expand significantly. Consumer demand is also likely to increase slightly next year, so that some stimulation will be received from this corner, too. Imports will grow by 4.2% this year and by 5.1% in 2006.

Under these conditions, the external balance will continue to rise both this year and next year. All in all, the external economy alone will contribute 0.9 percentage points this year to real GDP growth and 0.8 percentage points next year.

Export prices have risen again since the spring. The scope for price increases has evidently tended to increase in recent months in consequence of the ongoing upturn in the world economy and the depreciation of the euro; as a result, producers have been able to at least partly pass on the cost increases created by the rise in prices for energy sources and industrial commodities. This was facilitated by the fact that their competitors in other countries were also affected by the price increases on the industrial commodity markets. In view of the stiff international competition and only moderate wage growth in Germany, it can be expected, however, that the rise in export prices will remain modest over the forecast period.

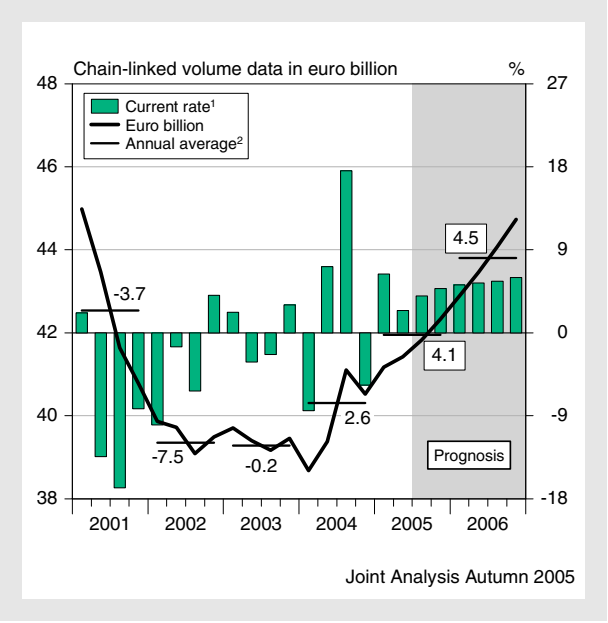
The increase in import prices accelerated appreciably this year. The decisive factor was the continued robust increase in prices for energy sources and other commodities, which was further strengthened in recent months by the euro's depreciation. This forecast is based on the assumption that the price of oil will amount to around US $ 60 per barrel and that the euro's exchange rate will remain more or less at its current level. Under these conditions, the increase in import prices will weaken considerably next year. The terms of trade will deteriorate by 1.5% this year, and by 1.3% next year.

Growth in machinery investments

Machinery investments have moved onto an upward trajectory again since spring 2004. The primary reason has been the improvement in sales and profitability prospects abroad. As a result, investments are now being made in particular in the export-oriented sectors of industry, where capacity utilization is also rising perceptibly. Investment is being stimulated in general by the favorable financing conditions – for example, by the further reduction in interest rates on the capital market. In addition, enterprises have substantially increased their profit margins by considerably reducing their personnel costs, primarily by means of lengthier working

Figure 11

Real Investment in Machinery and Other Equipment



1 Change (%) on the previous quarter, annualized rate (right-hand scale). — 2 Figures: change (%) of the original values on the previous year.
Sources: Federal Statistical Office; Institutes' calculations; from 3rd quarter 2005 onwards: Institutes' forecast.

hours and the abolition of non-tariff benefits. Capacity utilization is still low in the sectors that target the domestic market. Thus, the rise in machinery investments in the first half of the year remained moderate overall.

The results of surveys[22] and the upward trend in domestic incoming orders for producers of investment goods lead the Institutes to expect a more vigorous expansion of investments in the second half of the year. This is also indicated by the volume of large-scale orders recently received. A slight increase in the pace of investment growth can be expected next year. However, the momentum will remain moderate compared to previous phases of recovery as oil prices remain high and therefore dampen growth, while the domestic forces for growth will remain weak. However, the robust growth in external demand will encourage those firms that are directly or indirectly dependent on exports to expand their production capacities. All in all, machinery investments will increase by 4.5% in 2006, following a rise of 4.1% this year. Investments in other equipment will increase by an annual average 2.1% in 2005 and by 4.0% in 2006.

[22] Cf. J. Gürtler and A. Städtler: 'Dynamisches Wachstum in der Leasingbranche – die Anzeichen für eine Belebung der Investitionstätigkeit mehren sich.' In: *ifo Schnelldienst*, vol. 58, no. 17, 2005, pp. 21-24; A. Weichselberger: 'Westdeutsche Industrie plant nach drei Jahren rückläufiger Investitionen für 2005 einen Anstieg.' In: *ifo Schnelldienst*, vol. 58, no. 17, 2005, pp. 25-31.

Continued decline in construction demand

Construction investments are still in a slump. Residential construction, in particular, is continuing to decline, despite low mortgage interest rates. The dampening effects resulting from job uncertainty and the weak growth of real incomes will persist this year, too. The additional demand created by the debate concerning the abolition of the subsidy for owner-occupied housing construction has probably been largely absorbed, and the absence of orders brought forward in order to avail of the subsidy will now be felt. In some regions, the surplus of housing will also curb demand. Next year, the pace of the downward trend will slow down slightly. Prospects on the labor market will brighten to some extent, and in some specific regions, construction of apartment blocks is likely to become profitable again for commercial investors.

In the commercial construction sector, the moderate pace of economic recovery as well as the high surplus capacity of office property suggest that there is little hope of reversing the downward trend. Investments in commercial construction are therefore likely to diminish substantially this year. The gradual stabilization of property rents and the recovery in machinery investments suggest that the downward trend in commercial construction will slow down next year.

Public-sector investment in construction will fall again over the course of this year because of the difficult budget situation. Next year, however, the municipalities – the main public-sector investors – are likely to invest

Table 15

Real Investment in Construction[1]

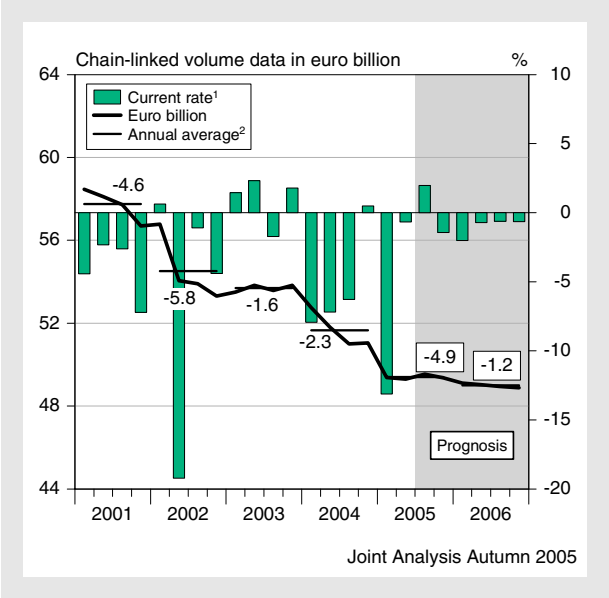
	2004	2003	2004	2005	2006
	% Share	Change (%) on the previous year			
Residential buildings	58.1	–1.0	–1.6	–5.0	–2.1
Nonresidential buildings	41.9	–2.4	–3.4	–4.6	–0.1
Commercial construction	30.4	–0.6	–1.0	–5.2	–1.0
Public-sector construction	11.5	–6.5	–9.1	–3.0	2.3
Investment in construction	100.0	–1.6	–2.3	–4.9	–1.2

1 At previous year's prices.
Sources: Federal Statistical Office; Institutes' calculations; 2005 and 2006: Institutes' forecast.

Figure 12

Real Investment in Construction

Adjusted for seasonal fluctuations and working days



1 Change (%) on the previous quarter, annualized rate (right-hand scale). — 2 Figures: change (%) of the original values on the previous year.
Sources: Federal Statistical Office; Institutes' calculations; from 3rd quarter 2005 onwards: Institutes' forecast.

more as their revenue from business tax increases. Moreover, the federal government's rising income from the highway toll for goods vehicles is likely to boost public-sector investment to some extent. However, this revenue will probably not be entirely utilized for additional investments in view of the enduring pressure to consolidate the budgets. All in all, construction investments will decrease by 4.9% in 2005 and by 1.2% the following year.

Private consumption still Germany's problem child

Germany has still not managed to remedy the lull in consumption that has persisted since 2002. Consumer spending actually declined again in real terms in the first half of this year. Although further tax cuts entered into force at the beginning of the year, disposable income failed to increase because of weak employment growth and a decline in social transfers. In real terms, disposable income actually declined, in particular as a consequence of the sharp rise in energy and fuel prices. The savings ratio remained high in view of uncertain income and employment prospects.

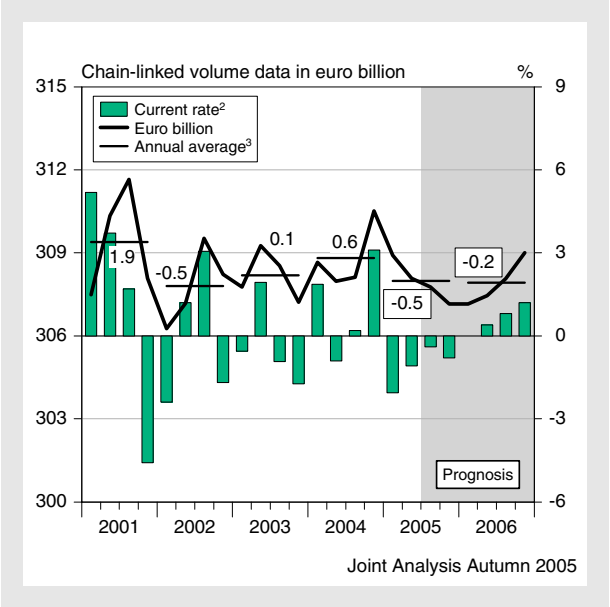
A sustained recovery of private consumption is not to be expected over the forecast period. The high level of job uncertainty and the gloomy income prospects are continuing to curtail consumption, and gross earnings are practically stagnant. In addition, employees have been paying an additional contribution to statutory health insurance since mid-2005. Moreover, the high energy prices are substantially reducing purchasing power. Private consumption is likely to fall by 0.5% in real terms on annual average in 2005 (cf. figure 13).

Gross wages and salaries will rise to some extent in 2006 as the volume of employment begins to expand again. However, actual wages will rise more slowly than negotiated wages, as has already been the case in previous years. The abolition of non-tariff wage components will continue. There will be little growth in net wages because of the system of progressive tax rates. Monetary social benefits will increase only marginally. Old-age pensions will not be raised mid-year for the third time running. Income from self-employment and assets will expand again at a considerable pace, however. This will be partly due to the improved economic situation and to the increase in dividend payments. The disposable income of private households will rise at a sharper rate – 1.4% – than this year. The savings ratio will remain constant at 10.6%. Although employment prospects will brighten up, private households are likely to increase their savings for old age. All in all, real private consumption will increase only marginally over the

Figure 13

Real Private Consumer Spending[1]

Adjusted for seasonal fluctuations and working days



1 Including private non-profit organizations. — 2 Change (%) on the previous quarter, annualized rate (right-hand scale). — 3 Figures: change (%) of the original values on the previous year.
Sources: Federal Statistical Office; Institutes' calculations; from 3rd quarter 2005 onwards: Institutes' forecast.

Box 6

Chain-linked volume measures

The Federal Statistical Office and the Institutes have always expressed the trend for real GDP in constant prices with respect to a base year (*fixed price basis*). Real GDP in year t was given by the sum of i (i = 1, …, n) quantities q(i,t) at the prices p(i,0) of a base year 0:

$$GDP(t) = \Sigma_i (i,t)\, p(i,0)$$

The base year (the last used was 1995) was usually updated every five years in order to take account of changes in relative prices. On April 28, 2005, the Federal Statistical Office published the results of a comprehensive revision of the National Accounts. Real GDP is now expressed in terms of an annually changing price basis (*preceding year price basis*). The mathematical procedure is to first calculate relatives for the annual results at constant prices based on the previous year. By chain-linking the annual changes in volume, time series can be calculated for the volume trends. Real GDP is expressed in terms of a chain index where the reference year 2000 = 100.

In this forecast, in order to be able to continue to express the magnitudes of real aggregates, the Institutes instead of chain indices present so-called chain-linked volume measures in billion euros (cf. Key National Accounts Data, p. 416). These are obtained by multiplying the accumulated annual changes in volume by nominal GDP in the reference year [= $\Sigma_i q(i,0)\, p(i,0)$]:

$$GDP(t) = \Pi_{k=1,\ldots,t} \Delta_{GDP}(k,k-1) \times \Sigma_i q(i,0)\, p(i,0)$$

$$\text{by } \Delta_{GDP}(k,k-1) = \Sigma_i q(i,k)\, p(i,k-1) / \Sigma_i q(i,k-1)\, p(i,k-1)$$

(= annual change in volume)

The switch to the method of the preceding year price basis means that there is no longer any need to correct the growth rates of real aggregates, as was generally necessary each time the base year was changed in the past. One disadvantage of the new system is the fact that the chain-linked volume measures are not additive. In other words, the sum of the real GDP components generally does not produce the value of real GDP, rather a residual emerges (i.e., the difference between the directly calculated chain-linked GDP and the sum of the chain-linked GDP components). Between 1991 and 2004, this residual amounted to a maximum 0.4% of real GDP. The residuals are generally all the larger the longer the distance between the reporting interval and the reference year. They are zero only in the reference year and the following year. The only way to express balances such as the external balance or the change in stocks in real terms is to use the GDP growth components (cf. table 17).

Various procedures are available for constructing price-adjusted aggregates for the quarterly calculations; the Federal Statistical Office has chosen the 'annual overlap' method. The advantage of this procedure is that the sum of the quarterly results corresponds to the respective annual result (time additivity).[1]

[1] Cf. W. Nierhaus: 'Vorjahrespreisbasis und Chain-Linking in den VGR: Das Wichtigste der neuen Volumenrechnung.' In: *ifo Schnelldienst*, vol. 58, no. 15, 2005, pp. 29-35.

course of 2006. Because of its low level at the beginning of the year, the annual average trend for real private consumption will actually be a decline of 0.2%.

Oil inflation drives prices upwards

Following sharp price increases for crude oil and other commodities, the acceleration in prices at the consumer level intensified. The inflation rate reached its highest level in over four years when it rose to 2.5% in September. The price rise was partly based on a further increase in tobacco tax (1.2 cent per cigarette). The core inflation rate (consumer prices, excluding energy prices and the increase in tobacco tax) amounted to 1.25% in September. However, the inflation of crude oil and other commodities, which has already persisted for some time, will increasingly be passed on to downstream production phases. Thus, the core rate will also increase.

All in all, however, this forecast is not based on the expectation of a sustained deterioration in the price climate. On the one hand, the ongoing weak level of consumer demand and the intensive competition in retail trade are unlikely to permit higher price increases; on the other, the high level of unemployment will have a dampening effect on wage growth and thus also on labor costs. However, gas prices, electricity prices, and charges for district heating, which are all aligned with the trend for oil prices, will rise significantly. The inflation rate will amount to around 2% on average this year. The rather substantial overhang (1.5%) and the fact that the energy-price rises will be passed on for some time to come suggest that next year's inflation rate will be of a similar magnitude.

Lethargic output growth

The trend for macroeconomic activity has been very irregular since the low point reached in 2003.[23] While GDP rose robustly at the beginning of this year, it stag-

[23] The fluctuations from one quarter to the next are possibly exaggerated because inadequate consideration is given to the working-day effect.

nated in the second quarter. Overall, it rose at an annualized rate of 1.5% in the first half of 2005. Macroeconomic output was boosted by external demand, in particular, while investment in machinery and stocks also provided stimulation. Industrial output, which rose considerably, profited in particular from this trend. Output in the tertiary sector increased only slightly, while value added actually fell in consumer-related services. The decline in the construction sector persisted.

A continued increase in macroeconomic output looks likely for the second half of the year. This is indicated by the lively trend for orders in manufacturing industry; in particular, orders from abroad have risen dynamically. The acceleration in the pace of growth will be slight, however, because the domestic forces for growth have been weakened by the oil-price thrust,

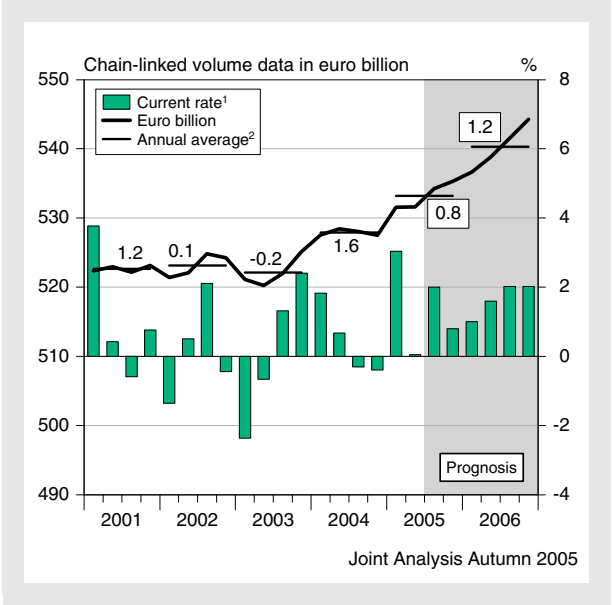
All in all, the Institutes expect GDP to rise by 0.8% in 2005. After adjusting for working days the increase will amount to 1.0% (cf. table 17, figure 14).

Macroeconomic output will rise at a slightly swifter pace in 2006. In addition to external demand, domestic demand will then also contribute to the increase. However, strong momentum is still not to be expected because the price of oil will remain high and the effect of this year's price thrust will persist. Industrial output will continue to grow. In addition, the decline in the construction sector will slow. All in all, GDP can be expected to rise by 1.2%; the increase will amount to 1.4% following adjustment for the working-day effect.

Figure 14

Real GDP

Adjusted for seasonal fluctuations and working days



1 Change (%) on the previous quarter, annualized rate (right-hand scale). — 2 Figures: change (%) of the original values on the previous year.
Sources: Federal Statistical Office; Institutes' calculations; from 3rd quarter 2005 onwards: Institutes' forecast.

In eastern Germany, in the first half of this year GDP fell slightly below the level reached in the first half of

Box 7

Energy import bill

The price increases on the international energy markets are a significant burden for the German economy. A first indication of the size of the burden can be gleaned from the energy import bill, which summarizes German imports of crude oil, natural gas, fuel, and other energy sources. In the interests of simplification, it was assumed in the following calculations that the volume of imports will remain identical in 2005 and 2006. Thus, changes in consumption habits are not taken into account.

Under the assumptions made in this forecast regarding the oil price, Germany will have to spend an additional 20 billion euro this year for energy imports; this corresponds to almost 1% of nominal GDP. Next year the import bill will be another 16 billion euro higher; at almost 0.75% of GDP, the increase in expenditure will be only slightly weaker than this year. The specific origins of the burden will also shift to an extent: This year, the effect of the increase in the price of oil will be stronger; next year the burden will originate to a greater extent from the other energy sources, especially natural gas, whose prices often adjust to the change in the price of oil only following a certain time lag.

The impact of the price increases for energy sources will therefore be significant. However, this had already been given ample consideration in the previous forecasts; for example, in the spring forecast, the Institutes had expected an average oil price of around 50 U.S. dollars per barrel both this year and next year. Thus, the increase in the price of oil since then and the resulting correction of the estimation of its further development this year only results in a slight increase in the energy import bill compared to the spring. Next year, however, will bring an additional burden of around 0.5% of nominal GDP.

These effects correspond to the maximum possible impact, not least because energy savings are not taken into account. Other factors left unconsidered in the calculations are the increase in earnings from exports of mineral-oil products induced by the higher prices, and the fact that cost increases in exports – again induced by the higher energy prices – will be passed on to buyers, so that some of the burden is exported abroad.

Table 16

Energy Import Bill[1]

	2000	2001	2002	2003	2004	2005	2006
Crude oil							
Billion euro	23.83	21.37	20.04	20.22	24.42	35.63	40.66
Million metric tons	105.14	104.63	104.73	106.36	110.14	110.14	110.14
Change (%) on previous year	1.4	–0.5	0.1	1.6	3.6	0.0	0.0
Average price in euro per metric ton	226.6	204.2	191.4	190.1	221.8	323.5	369.2
Change (%) on previous year	86.7	–9.9	–6.3	–0.6	16.6	45.9	14.1
IEA import price in US dollars per barrel	28.0	23.5	24.1	28.4	36.4	51.8	60.0
Change (%) on previous year	62.1	–15.9	2.4	17.7	28.0	42.6	15.8
Euro/US $ exchange rate	0.92	0.90	0.94	1.13	1.24	1.25	1.20
Natural gas							
Billion euro	8.43	11.44	9.92	10.84	11.15	15.18	20.60
Million terajoules (TJ)	2.84	2.95	3.06	3.19	3.39	3.39	3.39
Change (%) on previous year	–0.8	3.9	3.8	4.0	6.4	0.0	0.0
Average price in euro per TJ	2 967.4	3 875.0	3 238.0	3 401.0	3 288.0	4 477.2	6 078.3
Change (%) on previous year	0.0	30.6	–16.4	5.0	–3.3	36.2	35.8
Mineral-oil products, coal, coke, etc. in billion euro	12.4	10.7	14.0	16.9	17.5	22.4	28.3
Total energy imports in billion euro	44.63	43.46	43.99	47.93	53.08	73.25	89.56
Year-on change							
Billion euro	21.14	–1.17	0.53	3.94	5.15	20.17	16.31
As % of nominal GDP	1.0	–0.1	0.0	0.2	0.2	0.9	0.7

1 The energy bill illustrates the additional burden resulting for Germany from the increase in the price of imported energy sources. It is assumed that the same quantities of energy will be imported in 2005 and 2006.
Sources: BAFA; MVW; BMVW; Federal Statistical Office; Institutes' calculations; 2005 and 2006: Institutes' forecast.

2004, while it rose by 0.8% in western Germany. The main factor behind the persistence of the weak phase in eastern Germany was the fact that its industry is not particularly export oriented. Thus, output growth did not benefit greatly from the very strong external impulses. In addition, the decline in construction activity, measured in terms of turnover in the construction industry, was twice as strong as in western Germany.

In recent months, both incoming orders and turnover in industry have risen very robustly in eastern Germany, too, and indicators suggest that the decline in the construction sector will be much weaker than before. Consequently, a significant increase in macroeconomic output can be expected again in the second half of the year, primarily as a consequence of sharp increases in industrial production. Value added in enterprise-related services and in the transport sector is likely to rise on the basis of this resulting impetus. However, because of the lull in the first half of the year, there will be only a marginal increase in GDP for 2005 as a whole. Next year, growth will also accelerate in eastern Germany, though to a weaker extent than in the west because Germany's economic recovery will still be mainly borne by the export economy.

Table 17

Contribution of Demand Components to Increase in GDP[1]

In percentage points

	2004	2005	2006
Consumer spending	0.0	–0.4	–0.1
Private households[2]	0.3	–0.3	–0.1
Government	–0.3	–0.2	0.0
Fixed capital formation	0.0	–0.2	0.2
Machinery	0.2	0.3	0.3
Construction	–0.2	–0.5	–0.1
Other	0.0	0.0	0.0
Change in stocks	0.5	0.5	0.2
Domestic demand	0.5	–0.1	0.3
External surplus/deficit	1.1	0.9	0.8
Exports	3.3	2.2	2.6
Imports	–2.2	–1.4	–1.8
GDP[3]	1.6	0.8	1.2

1 Cf. table 12 for definition. At previous year's prices; figures may not sum due to rounding. — 2 Including private non-profit organizations. — 3 Change (%) on the previous year.
Sources: Federal Statistical Office; 2005 and 2006: Institutes' forecast.

Little immediate improvement on the labor market

The situation on the labor market has continued to deteriorate against the background of weak growth. This is demonstrated not least by the ongoing downward trend in the number of employees subject to mandatory social insurance. Since the spring, this trend has at best only flattened out to some extent; in mid-2005, the figure was still around 400 000 lower than a year previously. However, this development is also a consequence of the abolition of some traditional labor market policy instruments – especially job-creation measures. The reform of labor market policy has had very discernible effects for the remainder of the labor force. The number of 'minijobs,' which had continued to rise steadily last year, fell in the first quarter of 2005, but subsequently increased again slightly. The basic trend for the number of 'Ich-AG' small businesses, which had soared again at the beginning of the year following the entry into force of Hartz IV, has since been in decline. On the one hand, the number of newly approved grants is likely to have decreased as the qualifying conditions were tightened up (evidence is now required of a viable business concept). On the other hand, more businesses closed down as an increasing number of founders moved into the second or third year of the program and therefore received much lower subsides, which in many cases did not suffice to cover the required social insurance contributions.

The total number of employed declined in the first quarter, but subsequently rose again.[24] However, the increase is mainly a consequence of the increased provision of non-profit job opportunities ('supplementary jobs') for recipients of ALG II. Their number increased by 90 000 between March and June. The sharp expansion of these 'one-euro jobs' is problematic because there is a growing number of signals that such employment relationships are displacing regular employment.[25] Without taking 'minijobs,' 'Ich-AG' businesses, and 'supplementary jobs' into consideration, the number of employed has been in visible decline to date. The perceptible increase in the number of vacancies this year is also a consequence of the growing supply of 'supplementary jobs.'

The number of unemployed soared by around 550 000 in the first three months of the year because, since the implementation of the Hartz IV labor market reforms, social welfare recipients who are fit for work but were previously not registered as unemployed are now included in the unemployment statistics.[26] The seasonal decline in the number of unemployed that can be observed since April can be partly explained by the fact that people who were not entitled to ALG II withdrew their claim or did not update it, or proved on closer inspection to be unfit for work and were therefore removed from the register. However, what had a much greater effect was the fact that an increasing number of long-term unemployed were employed in 'supplementary jobs.'

There is no reason to expect a radical improvement on the labor market. The number of insured employed will first continue to decline, albeit at a slower rate than up to now. This number will reach its lowest point over the course of the coming year as the economic recovery progresses, and will then rise slightly in the second half of the year. The total number of employed will remain on a positive trajectory this year, albeit primarily because of the expansion of 'supplementary jobs.' A slightly more robust increase in employment can be expected next year, in part because the number of 'minijobs' will continue to grow. However, this growth will be offset by the fact that, under the current legislation, the aid provided by means of 'Ich-AG' businesses will expire at the end of this year. In addition, against the background of the debate concerning displacement effects, it can be expected that the expansion of 'one-euro jobs' will come to a halt. All in all, the number of domestic employed will have increased by 40 000 this year compared to last year. An increase of 210 000 can be expected in 2006. This figure is based on the assumption that the number of non-profit employment opportunities will increase by 205 000 in 2005 and by 133 000 in 2006.

The number of unemployed is also likely to decline over the further course of this year, especially because additional 'supplementary jobs' will be provided for recipients of ALG II. At an average 4.88 million this year, however, the number will still be around 500 000 higher than last year. Next year the number of unemployed will be reduced by the economic recovery, by the provision of additional job opportunities, by more intensive placement activities on the part of the Job Centers,

[24] The number of employed has been subject to frequent statistical revisions in recent years, which has led sometimes to marked changes in the overall trend. Thus, statistical data first showed a significant increase in employment until well into this year. According to the most recent revision in August, however, the initial months of 2005 will show a conspicuous decline.

[25] For example, the displacement is also indicated by the increasing number of lawsuits in which employees paid on a one-euro-job basis have sued for the full tariff wage for activities that cannot be considered supplementary jobs. Cf. 'Langzeitarbeitslose in Ein-Euro-Jobs klagen Tariflöhne ein.' In: *Frankfurter Allgemeine Zeitung* of August 16, 2005, p. 11.

[26] This figure also includes the approximately 70 000 social welfare recipients in the municipalities that chose the 'optional solution' (whereby the local authority assumes full responsibility for ALG II) who did not appear on the unemployment register until September. This was the main factor behind the sharp rise in the number of registered unemployed in that month.

Table 18

Labor Market Data

Annual averages in 000s

	2001	2002	2003	2004	2005	2006
				Germany		
Employment (domestic concept)		38 642	38 265	38 396	38 681	39 017
Employees		34 545	34 096	34 089	34 254	34 496
Employment (national concept)	39 209	38 994	38 632	38 782	38 821	39 031
Employees	35 226	34 991	34 560	34 564	34 453	34 625
of which:						
Insured employed	27 901	27 629	27 007	26 561	26 171	26 094
Exclusively marginally employed	4 112	4 148	4 322	4 742	4 808	4 928
Supplementary jobs				12	217	350
Self-employed	3 983	4 003	4 072	4 218	4 368	4 406
of which: Ich-AG						
Net commuters	107	102	90	86	120	155
Employment (domestic concept)	39 316	39 096	38 722	38 868	38 940	39 185
Unemployed	3 853	4 061	4 377	4 381	4 875[6]	4 755
Unemployment rate[1]	8.9	9.4	10.2	10.1	11.2[6]	10.9
Unemployed (ILO)[2]	2 900	3 229	3 703	3 931	3 955	3 800
Unemployment rate (ILO)[3]	6.9	7.6	8.7	9.2	9.2	8.9
Active labor market policy						
Short-time working	123	207	195	151	120	95
Job-creation schemes	236	194	145	119	58	50
Full-time further vocational training	352	340	260	184	110	110
				West Germany[4]		
Employment (domestic concept)[5]	31 433	31 337	31 059	31 192	31 226	31 421
Unemployed	2 321	2 498	2 753	2 783	3 257[6]	3 230
Unemployment rate[1]	6.9	7.4	8.1	8.2	9.5[6]	9.3
Active labor market policy						
Short-time working	94	162	160	122	94	71
Job-creation schemes	57	46	32	24	13	10
Full-time further vocational training	202	198	161	121	75	75
				East Germany[4]		
Employment (domestic concept)[5]	7 776	7 657	7 573	7 590	7 595	7 610
Unemployed	1 532	1 563	1 624	1 598	1 618[6]	1 525
Unemployment rate[1]	16.5	17	17.7	17.4	17.6[6]	16.7
Active labor market policy						
Short-time working	29	45	35	29	26	24
Job-creation schemes	179	148	113	95	45	40
Full-time further vocational training	150	142	99	63	35	35

1 Unemployed (national concept) as % of domestic labor force (employed plus unemployed).— 2 ILO definition. — 3 Unemployed (ILO definition) as % of domestic labor force (employed plus unemployed). — 4 Western Germany: former west Germany excluding Berlin; eastern Germany: former east Germany including Berlin. — 5 Institutes' estimate based on the results for the individual Länder of the 'Labor Force Estimations' of February/March 2005. — 6 Including all unemployed in the municipalities that chose under the 'optional solution' to assume full responsibility for Unemployment Benefit II.

Sources: Federal Statistical Office; Federal Labour Office; joint federal and state government working group 'Labour Force Estimations' (data from February/March 2005); 2005 and 2006: Institutes' forecast.

and by closer check-ups on suspected abusive receipt of ALG II. But this effect will be counteracted by the expiry of the regulation under Section 428 of the Social Code[27] – a kind of early retirement provision – which will increase the number of unemployed. Consequently, only a slight decline in unemployment to 4.76 million can be expected in 2006.

Slow decline in budget deficit

No progress will be made in consolidating the public budgets in 2005. The budget deficit will decrease from 81 billion euro to 78 billion euro, that is, from 3.7% to 3.5% as a share of nominal GDP (cf. table 19). Positive budgetary effects induced by special factors[28] will be offset by cyclical burdens and by income reductions caused by changes in fiscal legislation.

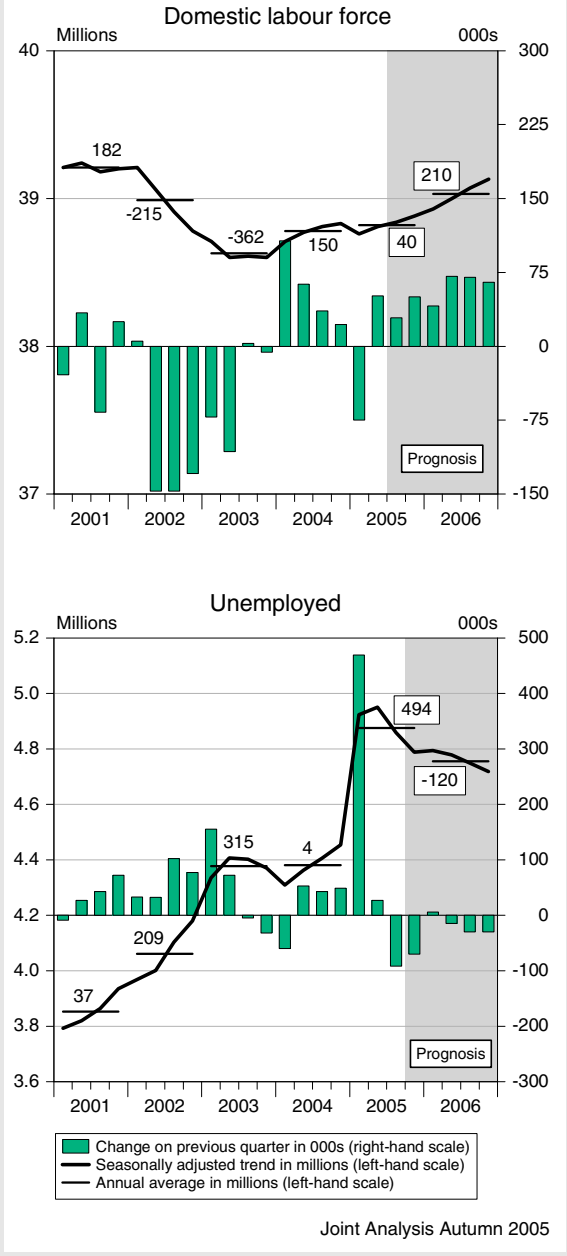
Tax revenue is likely to increase by 0.5% this year. The trend for VAT will be weak because growth will be based on exports. The decline in consumption due to the oil price will lead to revenue losses from mineral-oil tax. On the other hand, the increase in profits will drive up corporation and business tax. Revenue from contributions to social insurance is likely to stagnate. The number of insured employed will fall further, and income growth will be marginal. The total burden of contributions will not change. While the contribution to nursing-care insurance was raised for childless individuals at the beginning of the year, health insurance contribution rates were slightly reduced. The pension insurance system will close its funding gap by falling back on contingency reserves. All in all, government income is likely to increase by 0.6% and therefore at a much weaker rate than nominal GDP. The introduction of the highway toll for goods vehicles will also have a positive effect on revenue.

The rise in spending will be very limited this year (0.3%). Wages and salaries in the public service will decline again; there will be further personnel reductions and wage growth will be only marginal. By contrast, social benefits in kind will increase perceptibly because the reduction in the rate of increase caused by the implementation in 2004 of the statutory health insurance reform was only temporary. Spending on ALG II will be much higher than last year's outlay on unemployment assistance, social assistance (for those who are fit to work), and housing allowance. While spending per bene-

Figure 15

Persons in Employment and Unemployed

Seasonally adjusted[1]



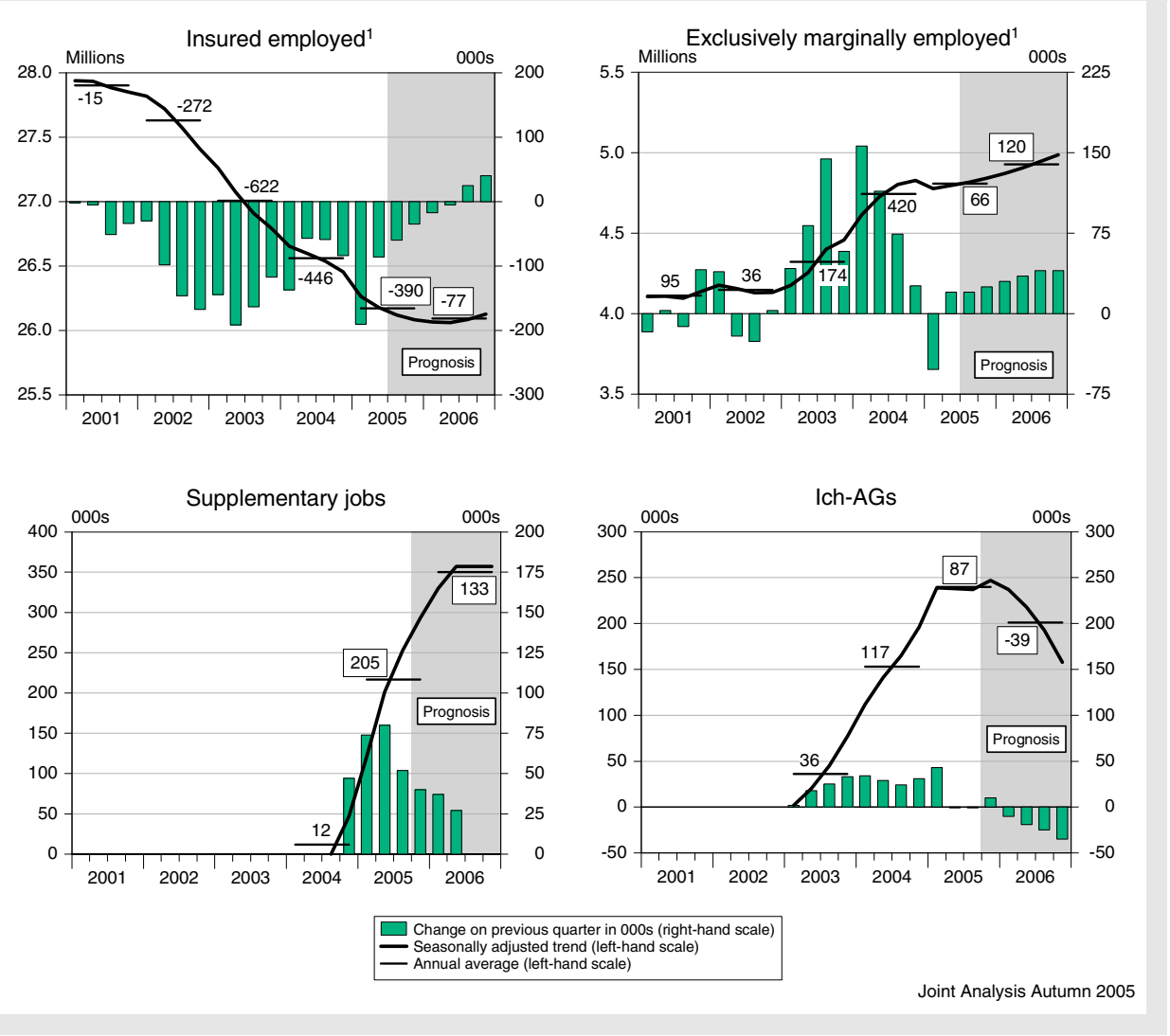
1 Figures: change in original figures compared to previous year in 000s.
Sources: Federal Statistical Office; Federal Labor Office; Institutes' calculations; from 3rd and 4th quarter 2005 onwards: Institutes' forecast.

[27] Under this regulation, unemployed persons aged 58 and over can continue to draw unemployment benefit until the earliest possible moment of entry into statutory retirement without having to be available for work.

[28] On the one hand, the burden on the Länder was reduced by the fact that the Land banks paid increased interest on assets that had been transferred to them in the past. On the other, the federal government was able to avoid paying transfers to the Postal Workers' Pension Fund by selling claims on the fund (cf. table 20). However, it is still uncertain whether the European Commission will accept these sales as a legitimate deficit reduction given that this transaction really amounts to a disguised loan (cf. box 8).

Figure 16

Employment Trend by Sector



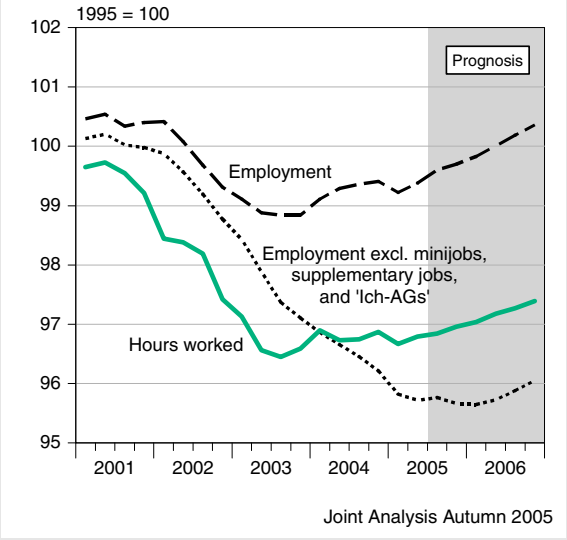
1 Adjusted for seasonal fluctuations. — 2 Figures: change on preceding year in 000s.
Sources: Federal Labour Office; Institutes' calculations; from 3rd and 4th quarter 2005 onwards: Institutes' forecast.

ficiary will decrease on average as a result of the fusion of unemployment assistance and social assistance for those who are fit for work, the number of beneficiaries will actually be much higher than last year. There will be little increase in pension payments because pensions were not raised in the summer and the number of pensioners is increasing only minimally. Furthermore, pensioners have been paying higher social insurance contributions since July 2005. Savings will also be made because capital transfers such as the subsidy for owner-occupied housing construction and investment grants have been reduced. Public-sector investments are likely to decline further. Finally, interest spending will increase again in view of the high level of new borrowing, given that interest savings will be lower than to date in refinancing old debts.

Government spending is likely to increase next year at a similarly moderate rate to this year. Personnel spending will decrease as staff cuts continue, while the large block of monetary social benefits will stagnate. Pensions will not be raised, and pensioners will also be compelled to pay a higher health insurance contribution for an entire year. Labor market-related spending is likely to fall slightly. Savings will likewise be made on the subsidy for owner-occupied housing construction and investment grants. Coal subsidies will be reim-

Figure 17

Hours Worked[1] and Domestic Employment[2]



1 Index, 1995 = 100; adjusted for seasonal fluctuations and working days. — 2 Index, 1995 = 100; adjusted for seasonal fluctuations.
Sources: German Bundesbank; Federal Labour Office; Institute for Employment Research; Federal Statistical Office; Institutes' calculations; from 1st quarter 2005 onwards: Institutes' forecast.

bursed because in previous years they were not adjusted downward in accordance with the increase in world market prices. However, the government will pay transfers amounting to 3 billion euro to the Postal Workers' Pension Fund. Social benefits in kind are likely to expand at an above-average rate, while interest spending will also rise perceptibly. Following an ongoing decline for many years in municipal investments, these are now likely to increase because the local authorities' financial situation has already improved substantially as a result of higher income from business tax.

Tax revenue is likely to expand by 2.8% next year. Revenue from income tax will increase only slightly in view of the expected trend for wage and employment growth. By contrast, revenue from profit-related taxes will continue to grow dynamically. Turnover tax is likely to rise at around the same rate as domestic demand.

A slight increase in revenue from social insurance contributions can be expected in 2006. Wages and the number of insured employed will increase only slightly. Contribution rates to pension and health insurance are likely to remain constant. The income of the statutory pension insurance funds will not suffice to finance expenditure under the current law on benefit entitle-

Table 19

Selected Fiscal Policy Indicators,[1] 1991 to 2006

As % of nominal GDP

	Government receipts			Government expenditure			Financial balance	Memo item: interest/tax ratio[2]
	Total	Of which:		Total	Of which:			
		Taxes	Social insurance contributions		Interest spending	Gross investment		
1991	43.4	22.0	16.8	46.3	2.7	2.6	–2.9	12.2
1992	44.8	22.4	17.2	47.2	3.1	2.8	–2.5	14.1
1993	45.2	22.4	17.7	48.2	3.2	2.7	–3.0	14.3
1994	45.6	22.3	18.2	47.9	3.2	2.5	–2.3	14.2
1995[3]	44.9	21.9	18.3	48.1	3.5	2.2	–3.0	15.9
1996	46.0	22.4	19.0	49.3	3.5	2.1	–3.3	15.5
1997	45.7	22.2	19.2	48.4	3.4	1.8	–2.6	15.3
1998	45.9	22.7	18.9	48.0	3.4	1.8	–2.2	14.8
1999	46.6	23.8	18.7	48.1	3.1	1.9	–1.5	13.2
2000[4]	46.4	24.2	18.3	47.6	3.2	1.8	–1.2	13.0
2001	44.7	22.6	18.2	47.6	3.1	1.7	–2.8	13.5
2002	44.3	22.3	18.1	48.1	2.9	1.7	–3.7	13.2
2003	44.4	22.3	18.2	48.4	3.0	1.5	–4.0	13.4
2004	43.2	21.7	17.8	46.9	2.8	1.4	–3.7	13.1
2005[5]	42.9	21.5	17.6	46.4	2.9	1.3	–3.5	13.3
2006[5]	42.7	21.7	17.4	45.8	2.9	1.3	–3.1	13.3

1 On national accounting definitions. — 2 Government interest spending as % of tax revenue. — 3 Excluding asset transfers linked to the assumption of the debts of the Treuhandanstalt (privatization agency) and the housing sector of the former GDR (–119.4 billion euro). — 4 Excluding receipts from the sale of UMTS licences (50.8 billion euro). — 5 Taking account of 'reduced expenditure' resulting from the sale of asset-backed securities from the Postal Workers' Pension Fund (2005: 5.5 billion euro; 2006: 2.5 billion euro).
Sources: Federal Statistical Office; Institutes' calculations; 2005 and 2006: Institutes' forecast.

Box 8

Statistical calculation of deficit and debt ratios in the European fiscal surveillance procedure

There has recently been some ambiguity regarding the size of the budget deficit and the level of indebtedness as a share of nominal GDP. The doubts have three origins: differences in the definition of GDP at German and European level, the way in which the sale of claims on the Postal Workers' Pension Fund should be handled, and the treatment of 'placeholder transactions'.

In 2005, the calculation of GDP was revised in Germany in accordance with the new European standards. Since then, banking services (FISIM) have been booked using a different procedure that leads to a higher level of GDP (cf. 'The World and the German Economy in the Spring of 2005', in: *DIW Berlin Weekly Report,* no. 14/2005, p. 161). Given that not all EU countries have yet implemented this revision, the GDP used in the European procedure of fiscal surveillance for 2005 is still that defined in accordance with the old convention. The deficit ratios calculated on this basis are somewhat higher than those based on the official National Accounts data.

There is still disagreement as to how the sale in 2005 of asset-backed securities from the Postal Workers' Pension Fund (8 billion euro) should be booked in the National Accounts. Both the federal government and the Federal Statistical Office classify the pension fund as belonging to the enterprise sector, while Eurostat sees it as a public-sector entity and therefore interprets these sales as government borrowing (cf. 'The World and the German Economy in the Spring of 2005', in: *DIW Berlin Weekly Report,* no. 14/2005, p. 172). If the calculation is based on the Eurostat view, then the budget deficit will be higher than that reported here by 5.5 billion euro or 0.2% of nominal GDP in 2005 and by 2.5 billion euro or 0.1% of nominal GDP in 2006.

Moreover, the Eurostat data also shows a higher level of debt (1 451 as opposed to 1 437 billion euro at the end of 2004) because Eurostat now interprets 'placeholder transactions' as borrowing; the German Development Bank (KfW) had acquired government shares, for example in Deutsche Telekom, and had already paid dividends to the government before the shares were sold.

ments and at the current contribution rates, but the need for a hefty government transfer can be avoided by the fact that at the beginning of next year social contributions will have to be paid two weeks earlier by enterprises than has been the case to date.[29]

Under the assumptions made here, the government budget deficit will fall in 2006 to 70 billion euro or 3.1% of nominal GDP. The deficit limit stipulated in the Maastricht Treaty will therefore be exceeded for the fifth time in a row.

Table 20

Effects of Discretionary Measures on Taxes, Social Security Contributions, and Government Spending[1]

Increase (+) and decrease (–) in the tax burden on households in billion euro compared with 2004

	2005	2006
Reduction in income-tax rates (3rd phase of tax reform)	–6.2	–6.3
Reduction of tax concessions[2]	3.9	6.3
Pension Income Act	–1.0	–1.3
Increase in tobacco tax	0.5	0.5
Reform of business tax	0.3	0.4
Efforts to combat illicit employment	0.8	0.9
Increase in childless individuals' (aged 23-65) contribution to nursing-care insurance	0.7	0.7
Increase in pensioners' contribution to nursing-care insurance	0.4	0.4
Reduction of contribution to statutory health insurance by 0.05 percentage points in 2005	–0.5	–0.5
Increase in pensioners' contribution to statutory health insurance	0.3	0.6
Highway toll on goods vehicles (net of implementation costs)	2.4	2.6
Hartz IV labor market reform	–5.0	–5.0
Subsidy reductions	0.2	1.0
Staff reductions in public service	1.5	3.0
'Future Education and Care' investment program	–0.6	–1.0
Total	–2.3	2.3
Memo item:		
Capitalization of claims on Postal Workers' Pension Fund	5.5	2.5
Repayments by Land banks	2.2	–1.0
Asset transfers to Bankgesellschaft Berlin	–1.1	
Debt relief (e.g., Iraq)	–1.4	–1.4

1 Not including savings in budget execution and not including 'hidden' tax increases; not including repercussions at macroeconomic level. — 2 Especially including measures under the Supplementary Budget Act 2004, implementation of the government protocol declaration on the conciliation procedure regarding the Tax Benefits Reduction Act, Tax Benefits Reduction Act 2003).

Sources: Federal Ministry of Finance; Institutes' calculations.

[29] In 2006, therefore, as a one-off effect, the social insurance funds will take in contributions on wages for 13 months (December 2005 to December 2006). The result for employees will be a loss of interest payments for around two weeks. The anticipation of the payment deadline will have no effect on revenue from social insurance contributions under national accounting regulations, which allocate the contributions according to the period for which they are paid.

Economic Policy

At the start of its period in office the new Federal Government is facing a truly difficult situation in economic policy. Some reforms have been launched in recent years, but there are no signs of a breakthrough in solving the fundamental problems in the German economy. These are evident particularly in that medium-term growth in the gross domestic product (GDP) has been declining continuously and unemployment has been rising for decades.[30] It is the responsibility of economic policy to reverse these negative trends, and that will require a clear analysis of the reasons for the poor level of growth and the bad situation on the labour market. This is the only way to evolve a concept that could bring a lasting improvement in the outlook. The situation is so dramatic that the Federal Government cannot afford to delay fundamental changes in economic policy any longer.

The need for action is not lessened by the fact that Germany has been hailed as 'world champion in exports' (of goods). This does show that German firms are very productive and that many economic sectors have comparative advantages. But a country's prosperity does not solely depend on exports. What counts is how strongly real incomes, and so ultimately scope for consumption, are growing in the long term. In that regard the development in recent years has been as bad as it could be, for in real terms private consumption has hardly increased at all. For large sections of the population that is equivalent to a fall in the standard of living. That has not happened in almost any other major industrial country in recent decades. And the prospects for growth are rightly seen as poor. In the longer view, that is, in 10 to 15 years, if action is not taken in economic policy growth in per capita incomes will slow down further, if only through the already foreseeable demographic development. If so, the problems for public finance would also worsen, and the burden of charges on individuals would rise even further. All this is reflected in people's expectations, and it is presumably already dampening consumer spending and private investment. The weakness in growth can only be overcome if the fundamental conditions are improved, so that productivity rises faster, people work more and more is invested than hitherto.

The pressure to act is being increased particularly by the need to adjust caused by globalization. International competition has increased as more and more states adopt market economy principles. And many countries – particularly our competitors within the European Union – are endeavouring to lower their taxes further. That is hitting the German economy particularly hard, not least because international competition for inward investment has increased in our neighboring countries. Similarly, the wage level has come under pressure from the supply of labour in the new EU member states. We cannot evade all these tendencies in Germany. If we do not face up to the competition and do not make good use of the opportunities it also brings, Germany will inevitably fall behind.

Against the background of these major challenges the discussion between the parties during the Federal election campaign over the right economic policy strategy was not exactly helpful. One example is the controversy over Kirchhof's proposal for fundamental reform of the tax system. There has long been consensus, not only among economists but in policy as well, that it would be meaningful to simplify the tax system and make it more neutral. And economists agree that a system in which the assessment bases are widened, and the rates of tax reduced, would be vastly superior to the present system in regard to efficiency. That applies to the proposal to introduce a flat rate of tax, as well as to other concepts that have been on the table for a considerable time. It is only of secondary importance whether any particular proposal for specific rates of tax would lead to more or less tax revenue. If the concepts to improve the tax system presented by economists had been taken up in policy this would have signalled a fundamental change in economic policy. The chance was missed.

The new Federal Government faces the big task of formulating an economic policy concept and tackling reforms courageously. Otherwise it will not succeed in easing the problems of low growth and high unemployment. It must not restrict itself to a number of individual measures. In the present situation aspects of allocation should be the main focus in order to improve the conditions for growth and employment. Distribution policy considerations should come second.

What is needed, as the Institutes have repeatedly emphasized in earlier Reports, is a complete concept, in which the individual measures are coordinated and not mutually contradictory. The guiding principles of policy must be recognizable, and they include the following basic decisions:

1. Intervention by the state should be reduced in favour of more market economy elements and more individual responsibility. That applies to the labour market as well as to the systems of social security.
2. The state must concentrate on its basic tasks. Much public expenditure is unproductive, but it has to be financed with distorting taxation. That hampers

[30] Cf. also the analysis in the 2005 Spring Report, in: *DIW Berlin Weekly Report,* no. 14/2005.

growth. Hence, this kind of expenditure should be reduced. That would create more scope to increase the particularly productive expenditure by the state on research and the infrastructure – areas that have been neglected in recent years.

3. At the same time public finance must be consolidated. That is not only to ensure that the public budgets in Germany meet the requirements of the constitution and that the Stability and Growth Pact is fulfilled, it is chiefly to halt the rise in the debt ratio and reverse that trend. The consolidation should be only on the expenditure side, namely cuts in consumption spending.
4. The burden of charges on households and companies must not rise any further, it must be brought down in the medium term. Reducing tax concessions must be utilized to lower the rates of tax.
5. The incentives to work must be increased, as must the incentives to create profitable jobs in the private sector. That will require changes in tax and social policy, and in the legal framework for the labour market. The measures taken so far as part of the Hartz reforms are not nearly enough. Some are actually counterproductive as far as incentives are concerned, and they are also causing considerable additional state expenditure.
6. The other protagonists need to be reminded of their responsibility in economic policy. The state is not responsible for every objective, and it cannot achieve them all alone. It can only – and that is important enough – set a suitable framework. In the distribution of roles in economic policy the employers and trade unions are essentially responsible for employment, especially through their wage rounds and the regulations on working time.

The new Federal Government should acknowledge those principles that are crucial to a genuine reform policy and will promote growth and employment. Whether that will really happen is an open question. Pessimists may expect reforms by the new Federal Government to be reduced to the lowest common denominator, with a clear concept being lost in the process. But an optimistic view is also possible. In contrast to past years the major parties could now launch joint initiatives and succeed in establishing them, particularly as they are unlikely to be blocked in the Upper House (the *Bundesrat),* since the major parties also form the state governments. In some areas the parties are largely in agreement, and some concrete proposals have been put forward:

– The proposal by Koch and Steinbrück to reduce subsidies has been in circulation since 2003 and it should be taken up again. The Institutes repeat their recommendation to implement the measures that are still outstanding and are not in dispute to the amount of 70 billion euros within a period of five years; in addition, tax concessions that were in dispute at that time, like tax exemption for Sunday, public holiday and night shift bonuses, should be ended. That would create scope for lowering the rates of tax and increasing public investment. The need for this is recognized by the major parties.
– There is on principle agreement on the objective of consolidating public finance, but agreement still has to be reached on exactly how this is to be done and at what speed. The intentions the parties have so far expressed on this are not very precise, and they are far too tentative in regard to the medium term prospects for public borrowing. Moreover, they are not in accordance with the Stability and Growth Pact. A consistent policy of savings on consumption expenditure and a rapid reduction in financial assistance are needed to bring the budget deficit and the ratio of public borrowing down markedly.
– There is also agreement on principle on the need to reform corporate taxation. The Council of Experts is currently working on a comprehensive concept for the Federal Government that will also include specific proposals for implementation. The Institutes have already, in spring 2005, stated their preference for a dual income tax. This could be introduced as early as 2007. A measure that can be taken immediately is the decision by the Job Summit in spring this year, and this should be implemented.
– Agreement was reached some time ago on many points of reform of the federalist system. But the areas where more competition and so greater efficiency could be achieved were excluded from the negotiations. One example is redrafting the financial constitution. Reform here should be tackled much more courageously, to create stimulus to more growth and employment.

If the new Federal Government concretizes these points or develops them further, and then also implements them rapidly, the first big step would be taken. But others who bear responsibility for economic policy must also act. The discussion during the Federal election campaign on lowering subsidiary wage costs only touches part of the problem, for the diagnosis is: labour costs in Germany are too high in many sectors. So this is not primarily an area where the state must act, the employers and the trade unions bear the main responsibility. Certainly, collectively agreed wages have risen only moderately in recent years and working time has become more flexible, but these agreements were often only reached when the difficulties had worsened. To avoid matters coming to a crisis both sides in the wage rounds should be more open to plant agreements and allow greater flexibility in working time.

If the principles for economic policy outlined above are implemented and the corresponding reform proposals put into effect quickly the economy need not move into a phase of weak growth. People's expectations could very quickly be changed into a more positive outlook. For these reforms are chiefly designed to raise the path of growth, and this will ultimately benefit everyone. If, for example, the public budgets are consolidated, as the Institutes propose, people need no longer fear that charges will be increased in future; they may actually expect them to fall. That will counter any possible contractive effects of the budget consolidation. Moreover, the macroeconomic environment is favorable in many respects and it should encourage reform. The world economy is expanding at a rapid rate, and this will also support demand in Germany. In addition, interest rates have been very low by German standards for a long time. The monetary framework conditions have also continuously improved, as the German currency has been devalued year by year in real terms, while the real interest rate has remained unchanged, or at least the gap to other countries has not widened. Finally, the low level of interest rates on the capital market also eases the burden of interest payments on the state budget.

Fiscal policy

If the legislation is not changed Germany may be expected to exceed the limit for the public deficit laid down in the Maastricht Treaty for the fifth year in succession. A nearly balanced budget has moved into the distant future. The gap in public finance is only partly due to the low level of growth. By far the greater part is structural; according to estimates by international organizations the deficit, adjusted for cyclical factors, is currently about 3%.[31] So if the economic situation improves the budget deficit will probably fall only slightly unless additional consolidation measures are taken, and the level of borrowing will rise. The budget deficits need to be brought down significantly in the short term if Germany is not to risk a resumption of the EU deficit proceedings. Moreover, there is a risk that the budgetary scope for the state will be noticeably reduced in future if interest rates rise. So far the low level of interest rates has ensured that interest payments fell in relation to nominal GDP, despite a rising level of debt. Now the debt ratio is coming close to 70%, and interest rates may not remain as low as hitherto in the medium term.[32] Moreover, the automatic stabilizers can only have their full effect if the deficit has been sufficiently reduced.

There is need for action for other reasons, as well. The tax burden on companies is still too high in Germany compared with other countries. The factor labour is still made very much more expensive by subsidiary wage costs. There is considerable need for reform in pensions, health and nursing care insurance, owing to the foreseeable change in the age structure of the population, if only to avoid a further rise in subsidiary wage costs. The first steps have been taken in all these areas in recent years, but they are not nearly enough to achieve real improvement in the conditions for growth and employment and achieve viable public financing.

It is important for the new Federal Government to set the signals as quickly as possible and pursue a consistent strategy, state its objectives and set clear priorities. The measures on the expenditure side should be preceded by comprehensive and critical assessment of public tasks, with all public expenditure under the microscope. The Federal Government should identify potential for savings, but also indicate in which areas expenditure needs to be increased to promote growth. On balance state expenditure should be limited to enable the budget deficits and the burden of charges to be brought down. On the revenue side comprehensive reform of the tax system should be tackled, with the objective of creating simple and largely neutral tax legislation and improving companies' tax competitiveness. At the same time reform of the system of social insurance must be advanced to make this viable, bring down the burden of subsidiary wage costs and create more jobs.

The plans presented so far to consolidate the budgets are not very ambitious. The structural budget deficit will hardly be reduced this year, nor is it certain that it can be reduced in the medium term, either. Hence fiscal policy will actually fail to meet the requirements of the reformed Stability and Growth Pact, which states that countries with an excessive public deficit and a debt level of more than 60% of their GDP must reduce their deficit ratio, after cyclical adjustment, by at least 0.5 percentage points each year. If only to meet these requirements policy must intensify its efforts to bring the deficit down quickly below the 3% mark and come close to a balanced budget by the end of this legislative period.[33]

There is some controversy in the public discussion on the possible cyclical effects of consolidating the public budgets. On the one side, cutbacks in expenditure

[31] The IMF estimates Germany's budget deficit after cyclical adjustment as 3.2% for 2004 (World Economic Outlook, September 2005). In its Economic Outlook of May 2005 the OECD puts it at 2.6% and the European Commission, in its 2005 Spring Prognosis, at 3.3%.

[32] A rise in capital market rates of one percentage point would cost the public budgets about 15 billion euros a year (0.7% of nominal GDP in 2004) at the present level of the public dept.

and reducing tax concessions should in themselves have a dampening effect in the short term. On the other hand, demand will be stimulated if there is a prospect of consolidating public finances. A clearly falling debt ratio can make consumers and companies more confident that the burden of taxes and charges will fall in the medium term. Moreover, the prospects for growth will be better if subsidies and tax concessions are reduced, so removing allocation distortions. In the medium term view, higher growth will also increase the revenue from taxation and social insurance contributions, and require lower labour market expenditures, so enabling charges to be reduced. Admittedly, empirical studies have shown that the dampening effects will predominate in the short term,[34] but in the medium term a steeper growth path is to be expected.[35]

It is important to ensure that consolidation is qualitative and will promote growth. On the one side that means savings in state spending on consumption and tax concessions. In particular, subsidies and asset transfers (e.g. the home ownership grant) need to be reduced and reserves of efficiency in the public administration, and in the social insurance system, utilized. On the other side, investment expenditure on the infrastructure, education and research and development needs to be markedly increased. A specific starting point for cuts in subsidies and tax concessions is available in the list of savings compiled by Koch and Steinbrück, which formed the basis for the decisions by the Mediation Committee of the Federal Parliament and the Upper House in December 2003. The Institutes recommend making these cuts within five years; but other tax concessions also need to be reduced. The exemption for Sunday, public holiday and night shift bonuses, for example, cannot be justified in the economic view. The agreements between the Coalition parties to declare ending tax exemption for these bonuses taboo right from the start is counter-productive.

In reforming the tax system lowering the tax burden on companies should have priority, in order to make Germany more competitive as a location for inward investment. The tax burden on the retained earnings of incorporated firms in the form of corporation tax, trading tax and the solidarity premium is around 39% in Germany. It is lower in every other EU country, now that some states have reduced their rates, in some cases considerably. Germany is in a slightly better position in actual taxation, where the differences in the tax assessment basis are taken into account, but at 36% this is still higher than the average of the other European countries. In the new EU countries the tax on the earnings of incorporated firms is on average as much as about 16 percentage points lower than in Germany. As most countries are endeavouring to reduce the tax burden on companies Germany's position in the international location competition will deteriorate further if fiscal policy does not take action. To counter any deterioration in Germany's position the first step should be to implement the reform of corporate taxation agreed at the Job Summit as quickly as possible.[36] In the medium term view such a reform should at least be neutral for tax revenue, as low tax rates create incentives to create profits within Germany.

However, this should only be the start of a more far-reaching reform of income and profits taxation that will

[33] Like the other Institutes, DIW Berlin believes the most urgent task for fiscal policy is to support, without loss of time, growth-oriented reform processes on both the expenditure and the revenue side. We differ from the majority view, however, in arguing that this should also be done if it would delay the consolidation process in the short term. Hence, the two sides of the budget should not be hampering each other, for example, in that necessary reductions in charges are not made because it is not possible at the same time to cut expenditure, or meaningful expenditure is held back with reference to the lack of short-term finance from tax revenue. In weak cyclical phases as well, the principle must be maintained that public tasks, whose social rate of return is higher than the cost of financing them, are performed – not least in the interests of future generations. As domestic demand is still weak and J-curve effects are to be expected from comprehensive reforms that could, on balance, put a strain on the public budgets and the economic situation, fiscal policy should continue to support economic activity. An economic policy that intensifies consolidation efforts in the present situation could jeopardies medium and long-term growth potentials. If necessary steps in reform are made dependent on finance, that would at present be tantamount to blocking the reforms. The deficit ratio should only be reduced in a powerful upswing – but then, strongly. The higher rate of growth would already be reducing the deficit ratio, but the credibility of that policy should be underpinned by a medium-term consolidation strategy that is anchored in legislation.

[34] Cf. Leibfritz et al.: 'Finanzpolitik im Spannungsfeld des Europäischen Stabilitäts- und Wachstumspaktes – Zwischen gesamtwirtschaftlichen Erfordernissen und wirtschafts- und finanzpolitischem Handlungsbedarf', *ifo Beiträge zur Wirtschaftsforschung,* Munich 2001; and Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung (ed.): 'Staatsfinanzen konsolidieren – Steuersystem reformieren'. Jahresgutachten 2003/2004, Stuttgart 2003, Item 821.

[35] Cf. e.g. A. Alesina and R. Perotti: 'Fiscal Adjustments in OECD Countries: Composition and Macroeconomic Effects', in: *IMF Staff Papers,* vol. 44, no. 2, 1997, pp. 210-248; and L. Schuknecht and V. Tanzi: 'Reforming Public Expenditure in Industrialised Countries – Are there Trade-offs?' *ECB Working Paper Series,* no. 435, Frankfurt a.M. 2005.

[36] The draft law to improve the tax conditions for inward investment rejected by the Upper House provided for the rate of corporation tax to be reduced from 25% to 19%, and a higher amount of trading tax to be offset against income tax payable. The reductions were to be financed by limiting the deduction of losses on tax postponement models, only half of which was to be taxable – for a period of three years only – if unpublished reserves were declared on property sales and by raising the minimum taxable amount of income. In addition, additional revenue was expected from the repatriation of profits hitherto taxed abroad. The budget effects were estimated at –0.1 billion euros on balance (2006) and 0.8 billion euros (2007).

not only reduce the tax burden. For the present tax system causes distortions in investment and financing decisions and in the choice of legal form for an enterprise, so it is not neutral on decision-making. Moreover, the German tax system is regarded as complicated and lacking in transparency, with its many tax concessions and exemptions, and it involves heavy costs to follow up non-payments and for administration. Hence the assessment bases should be widened by ending tax concessions and exemptions and the rates of tax should be lowered.

A number of proposals have been put forward on the details of such reform. Chief among them are the model from the Social Market Economy Foundation, the proposal for a 'simple tax system' from the Heidelberg Tax Group, the Karlsruhe draft from Paul Kirchhof and the draft favoured by the Council of Experts for a dual income tax. All these proposals would constitute a considerable improvement over the present system. In their 2005 Spring Report the Institutes favoured the dual income tax. If it were introduced the differences in the taxation of income from employment and income from capital assets would enable the burden to be reduced first where it is most urgently needed: on internationally mobile income from capital. That would limit the tax revenue shortfall. At the start of next year the Council of Experts and the Social Market Economy Foundation will published the details of their proposals. Then it is up to the politicians to take them up and launch a tax reform that can come into force at the start of 2007.

In social charges the Federal Government has not achieved its aim of bringing the load down below 40% of gross earnings from employment. It is now just under 42%, although various measures have been taken to bring it down. From 1998 the grants to pensions insurance have been greatly increased as part of eco tax reform, in 2003 a grant to health insurance was introduced, financed from tax revenue, and savings were made by reforming pensions and health insurance. The burden of charges was also increased in some cases, e.g. by raising the assessment threshold for contributions to health insurance in 2003. The level of contributions is still high; it is a burden on the factor labour and an obstacle to employment.

A rise in the contribution rate to pensions insurance will only be prevented next year by bringing forward the date when social insurance contributions as a whole are due. Shifts of this kind will not solve the structural problems. On the contrary, the statutory retirement age needs to be raised in stages, the deductions for early retirement increased, and the pensions formula modified. The Federal Government has incorporated a sustainability factor in the pensions formula to enable increases in pensions to be reduced if the relation between the number in employment and the number of pensioners should deteriorate. But a clause to maintain the level of pensions will prevent these from falling this year and next year. To ensure that the burden on pensions insurance is reduced to the full extent needed the cuts which this clause prevents should be made in good cyclical years. It would also be appropriate to extend the sustainability factor to officials' pensions as well.[37]

In health insurance the reform that came into force in 2004 was essentially only a single reduction in the level of expenditure. Not enough was done to increase competition between hospitals and between the providers of health services. But that is necessary to achieve lasting gains in efficiency and enable the rise in costs in the health service to be kept down. And uncoupling health insurance contributions from the development in wages would also be helpful, if only because otherwise the contribution rates, and with them subsidiary wage costs, will rise further, for demographic reasons.

To lower subsidiary wage costs the CDU/CSU proposed during the election campaign raising the standard turnover tax rate by two percentage points and at the same time lowering contribution rates to unemployment insurance by two percentage points. This rearrangement of the sources of state revenue would be largely neutral on tax revenue,[38] but the parties hope that as wage costs fall growth would be strengthened and become more employment-intensive. Persons in employment and companies would pay less social insurance, but at the same time the higher rate of VAT would be a heavier burden. If companies succeeded in passing on the higher tax consumers' purchasing power would shrink. If they did not succeed in doing so, which would probably be the case in the present lackluster climate, the tax increase would be at the expense of profits; companies react to this by rationalizing, which is at the expense of employment, or they try to push through wage cuts. But the competitiveness of German suppliers against foreign competitors would improve, and this would have a positive effect, so that exports, that are not subject to VAT, would tend to increase and imports tend to fall. All in all, the Institutes regard the employment effects of such a shift in financing as slight.

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[37] A draft law presented by the Federal Government provided for this, but it was rejected by the Upper House, as it did not contain any transfer of measures with the same effect in statutory pensions insurance to the officials' pension system.

[38] Raising the standard rate of VAT to 18% would, on the present tax basis, yield 15.5 billion euros for the public budgets. A reduction of the contribution rate to unemployment insurance by two percentage points to 4.5% would, with the present wage bill for persons in employment paying social insurance contributions, reduce revenue by 14.5 billion euros (each estimated for 2006).

A reduction of the contribution rate to unemployment insurance in 2006 would be possible, in the view of the Institutes, without an increase in VAT. Expenditure by the Federal Employment Agency has already been reduced greatly this year, and with the expected development on the labour market it should fall further next year; moreover, the Federal Employment Agency will also benefit from bringing forward the date when social insurance contributions are due. Expenditure should also fall from 2007 because from February the period for which unemployment benefit is payable to persons newly registering as unemployed will be shorter. The Federal Agency itself has mentioned a reduction by 0.5 percentage points in mid-2006. The coming evaluation of the labour market policy instruments should show further possibilities for using the funds efficiently and lowering contribution rates even further. The Institutes want to see the contribution rate lowered by one percentage point in January 2006.

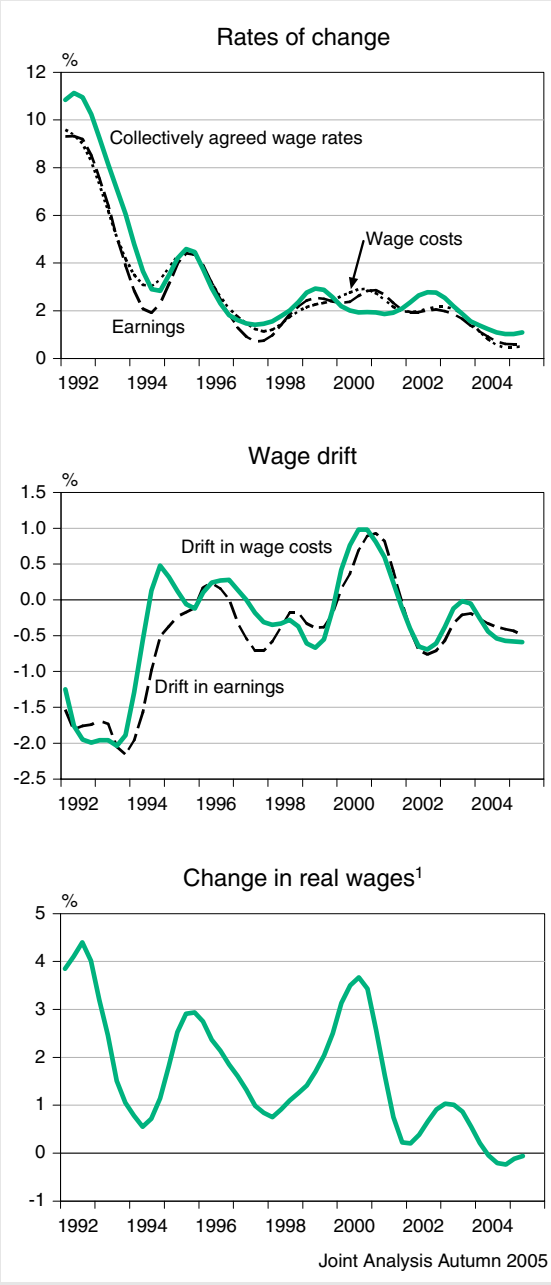
Wage policy

The wage trend has been very moderate since the start of last year. In 2004 and in the first half of this year collectively agreed hourly wages in the economy as a whole rose by 1.2%. Labour costs (salaries and wages per hour worked) actually remained almost unchanged in 2004. That must be the lowest rise in wage costs since 1950. But as in a period with an especially large number of working days, like 2004, the number of working hours remunerated is smaller than the number of hours worked, the basic tendency in labour costs is understated. After adjustment for seasonal factors and working days and for temporary irregular effects, the 'smooth' component enables a better assessment to be made of the trend in wages and wage costs.[39]

The growth in wage costs so measured (remuneration to employees), earnings (gross wages and salaries) and collectively agreed wages, all per hour, has fallen markedly in the last one and a half years (upper section of figure 18). In the first half of 2005 wage costs were about 0.5% higher than a year before, earnings about 0.6% and collectively agreed wages about 1.1%. For all three variables these are the lowest figures since 1991.

The wage drift adjusted for working days effects and irregularities, that is, the difference between the growth rate in the smooth component of wage costs or earnings, and the growth rate in collectively agreed wages, has been negative since mid-2001 for both criteria. At present it is about –0.5% for earnings (middle section of figure 18). This is due to the reduction in wage components above the collectively agreed rate, the increase in weekly working time without a corresponding increase in pay, or with only part compensation, and

Figure 18
Key Data on the Wage Trend



1 Wage costs deflated by the GDP price index.
Sources: Federal Statistical Office; German Bundesbank; Institutes' calculations.

[39] To calculate the 'smooth' component of the time flows an unobserved components model was estimated for the period 1991 to the 2nd quarter of 2005. As components the trend (modelled as an integrated random walk), the cycle, the season and a working days effect were used. The smooth component is the sum of the trend and the cycle components.

the ending of some overtime bonuses owing to plant agreements on flexible working time.

The rise in real wages (wage costs deflated by the GDP price index) has clearly flattened, and in part the trend was actually negative (lower section of figure 18). The "producers' real wage" was 0.1% lower than a year before in the first half of this year. And the trend in wages is currently very moderate relative to the prices of other production factors. While, for example, up to 2002 wage costs per hour were rising by two to four percentage points faster than the prices of capital investment, in the quarters since then they have changed by about the same amount.

In regard for employment these developments must be seen as positive. Low wage rises improve the competitiveness of the German economy, they make it less profitable to buy pre-products abroad and they also tend to create a more labour-intensive production structure and so more employment. But it takes time for these positive effects to materialize. Other factors, like the high density of regulations on the labour market, or negative incentives from labour market or social policy, are still having a dampening effect. And Germany is still near the top of the world table for wage levels, which cannot be justified by a high level of productivity. The big fall in employment in recent years compared with many other countries has produced a 'job-cut productivity' that only seemingly indicates scope for distribution.

If a moderate wage policy is to be successful companies must be sure that it will be continued during an upswing as well, and have confidence in indications that the trade unions will not attempt to make good any distribution losses they feel they have suffered with high wage demands at the first opportunity. In earlier Reports the Institutes have proposed that for wage negotiations the trend growth rate in labour productivity should be reduced slightly, and only that part of the inflation rate be taken into account that is not due to an increase in administered prices or a deterioration in the terms of trade.

As the trend growth rate in labour productivity is about 1%, and the trend inflation rate as defined above may be assumed to be slightly below that figure, collectively agreed wages should rise by only about 1%, even if the economic situation continues to improve and the situation on the labour market becomes slightly more relaxed. That is the only way for the market forces to regain more scope to determine the level of wages and the wage structure, and to ensure that the necessary structural change is at least not hampered on this side. Technical progress and global is at ion of the goods and factor markets not only require adjustment of the average wage level, they also require greater wage differentiation according to sectors, regions and occupational qualifications. Collective wage policy must take more account of this than hitherto, for instance with suitable opening clauses in collective agreements. But economic policy bears responsibility as well. Alliances for labour on plant level must be given a legal basis, and the principle of the advantageous solution must be anchored in legislation so that deviations from the collective wage agreements are possible without legal problems.

In general, wage and labour market policy should concentrate less than hitherto on securing existing jobs and focus more on the creation of new jobs. Jobs will inevitably be lost in the course of structural change. It is therefore important to increase flexibility on the labour market. Many studies have shown that a high degree of protection against dismissal, for example, reduces that flexibility and so, most importantly, increases the ratio of long-term unemployed while reducing the reallocation of labour, the number of new businesses being founded and the employment-intensity of production. By international comparison, and despite some relaxation in recent years, Germany still has a relatively rigid system of protection against dismissal from regular employment, and this needs reform. Similar considerations also apply to other forms of intervention in the labour market. Economic policy should advance in this area with more courageous steps in reform.

Monetary policy

The European Central Bank has repeatedly failed to meet its target of keeping the inflation rate just below 2% in recent years, but the deviations were slight. In the course of this year the rise in consumer prices has accelerated markedly; and the expansion of the money stock and lending has increased noticeably. Against that background the question arises whether the level of key interest rates in the euro zone, which has remained unchanged since June 2003, is still appropriate.

The main cause of the latest acceleration in inflation is the further and extraordinarily strong increase in the world market price for crude oil. Without the energy component the rise in consumer prices in the euro zone was slowing down until August; in September the core inflation rate went up slightly to 1.5%; a year before it was still 2.0%. So the basic price trend is still moderate.

For some time international competition has dampened prices. The noticeable increase in worldwide integration is influencing the price level in the euro zone through various channels. Firstly, the rise is being limited by falling prices, for imported finished products, for example. Secondly, fiercer competition from imports and the greater possibilities for shifting labour-intensive production processes into newly industrialised countries is

directly depressing the rise in wages in the euro zone, so there is no real pressure from that side to raise prices.

However, prices can start to rise more rapidly if the high level of liquidity now available worldwide has an increasing effect in stimulating demand. That would also affect the inflation rate in the euro zone. At present such acceleration of the inflation rate is not, apparently, expected. Capital market interest rates, which are very low worldwide, are an indication of this. But they may possibly be a reflection of the high level of liquidity in the world, and they are also an indication of a high savings ratio worldwide.[40]

But apart from the influences that may come from abroad there are risks to price stability in the euro zone because liquidity here has also risen markedly. That process was combined with falling capital market rates, a surge in share prices and in some countries strong increases in property prices. This has not yet brought an increase in inflation; demand in the economy as a whole has increased only moderately, but the question is how long such a situation can last without fuelling inflation.

The long phase of low key interest rates means that more and more liquidity has been made available to the banking sector, a process that is still continuing. The banks have lent more to the non-bank sector, but they have also purchased claims on the private sector (e.g. corporate bonds). In both these cases long-term interest rates are falling. However, this decline in interest rates need not, in itself, lead to high demand for goods. In the euro zone investment demand has been sluggish in recent years, despite the low level of interest rates, and chiefly because companies had accumulated debt during the New Economy bubble that proved untenable in the ensuing downswing. Accordingly, demand for new loans was hesitant. On the other hand, housing construction loans increased markedly, not least because bank loans were available at more favorable rates owing to the high ratio of security on real estate purchases.

However, it might have been expected that the strong growth in liquidity would slow down noticeably once the uncertainties had ebbed again. But there is as yet no sign of that. Most recently, the increase in the money stock has actually clearly accelerated, and the liquidity overhang has increased considerably. Even if this does not fully affect demand, because it is overshadowed by changes in investors' behavior, it does increase the likelihood of a stronger cyclical recovery in the medium term, with a consequent rise in inflation. The main task for the ECB is to prevent inflationary expectations from growing.

The concern is not to embark on a restrictive course in monetary policy now but only gradually to reduce the expansionary course pursued so far. For the ECB, like other central banks, reduced its key rate in 2003 to an extraordinarily low level, owing to special circumstances. Volatility on the financial markets had increased, partly against the background of terrorist attacks, and there appeared to be a risk of deflation. Those special circumstances are no longer given, and interest rates as low as this no longer seem justified. A further indication is that short-term interest rates are currently below the neutral level. The neutral level of interest rates is not easy to determine, but many estimates suggest that it is about 3.5%.[41] The actual interest rate cannot remain below that level permanently, for that would fuel the rise in liquidity in the euro zone. The M3 money stock is still an important indicator of the future inflation rate, and it accordingly plays a central role in the ECB's monetary policy strategy. It has already accelerated. That applies even more to M1, where the transaction motive plays a bigger part. Hence the risks to price stability have increased. It would be difficult to avoid this if the ECB did not react, particularly if the economic upswing in the euro zone firms. In fact, there would be a greater risk of inflationary expectations, and these are not yet strong enough to indicate failure to meet the target. To prevent this the ECB will tighten its expansionary course in monetary policy somewhat in the course of the coming year. The Institutes regard it as appropriate for the ECB to raise its key rates by a total of 50 base points.[42]

[40] Cf. the remarks in the section of this report on the world economy.

[41] It is assumed that the production potential in the euro zone is growing by 1.75% and the inflation target is just under 2%.

[42] DIW Berlin does not at present see sufficient justification for the ECB to abandon its present monetary course. Instead, important indicators suggest that the monetary stability target is not jeopardized. The core inflation rate, which is an indicator of homemade inflation in the euro zone, is still falling. Nor are there at present any signs of second-round effects that could come from the rise in prices due to the surge in oil prices. Moreover the inflationary expectations that can be read off from indexed bonds, suggest that the markets are not expecting a significant rise in inflation in the longer term, either. The influence of international competition in goods and for locations in disciplining the sources of profit- and wage-induced inflation in the euro zone is also acknowledged by the other Institutes, but the interpretation of the Euro money stock, which has risen markedly most recently, differs. DIW Berlin sees this as not so much a 'liquidity overhang' that could entail a risk of inflation in the medium term as a side effect of the growing integration and greater depth of the European financial market, which also brings a permanently higher need for liquidity for market participants. That is firstly the direct result of the higher volume of transactions in financial products, and secondly, market segments that are important and are becoming more important (especially forward transactions) mean the maintenance of permanent liquidity stocks to hedge risks. The difficulty of identifying empirically a demand for money based only on traditional trade in goods, the volume of transactions, short-term interest rates and volatility criteria is an indication of a fundamental change in the need for liquidity in the European economies.

Appendix 1

Federal Republic of Germany: Key National Accounts Data – Forecast for 2005 and 2006

	2004	2005	2006	2005		2006	
				1st half	2nd half	1st half	2nd half
			1. Components of GDP Change (%) on the previous year				
Employed labour force (domestic)	0.4	0.2	0.6	0.1	0.3	0.6	0.6
Working hours per working day	–1.1	0.1	0.1	–0.4	0.6	–0.5	0.7
Working days	1.5	–0.7	–0.7	–0.1	–1.2	0.0	–1.3
Labour volume by calendar month	0.8	–0.4	0.0	–0.4	–0.3	0.1	–0.1
Productivity[1]	0.8	1.2	1.1	1.0	1.3	1.0	1.2
Gross domestic product at 1995 prices	1.6	0.8	1.2	0.6	1.0	1.2	1.1
			2. GDP by type of expenditure at current prices a) Euro billion				
Consumption	1 725.3	1 739.2	1 763.2	846.6	892.6	859.8	903.4
Private households[2]	1 312.5	1 325.8	1 346.0	647.7	678.1	657.9	688.2
Government	412.8	413.4	417.1	198.9	214.5	201.9	215.3
Fixed capital formation	384.9	381.6	386.6	181.2	200.4	183.9	202.6
Machinery and equipment	149.4	154.3	160.9	72.5	81.8	75.6	85.3
Construction	210.7	202.2	199.8	96.5	105.7	95.8	104.0
Other	24.9	25.2	25.9	12.2	13.0	12.5	13.4
Change in stocks[3]	–4.0	5.7	12.0	7.7	–2.0	10.0	2.0
Domestic demand	2 106.2	2 126.6	2 161.7	1 035.6	1 091.0	1 053.7	1 108.1
External surplus or deficit	109.5	117.7	127.1	64.7	53.0	68.3	58.8
Exports	842.8	898.3	965.7	437.2	461.0	474.7	491.0
Imports	733.4	780.5	838.6	372.5	408.0	406.4	432.2
Gross domestic product	2 215.7	2 244.3	2 288.8	1 100.3	1 144.0	1 121.9	1 166.9
			b) Change (%) on the previous year				
Consumption	1.3	0.8	1.4	0.8	0.8	1.5	1.2
Private households[2]	1.9	1.0	1.5	1.0	1.0	1.6	1.5
Government	–0.6	0.2	0.9	0.2	0.1	1.5	0.4
Fixed capital formation	0.1	–0.9	1.3	–0.7	–1.0	1.5	1.1
Machinery and equipment	1.7	3.3	4.3	4.7	2.1	4.4	4.2
Construction	–1.1	–4.0	–1.2	–4.6	–3.5	–0.8	–1.6
Other	1.6	1.3	2.8	1.4	1.1	2.6	3.0
Domestic demand	1.5	1.0	1.7	1.2	0.7	1.7	1.6
Exports	9.1	6.6	7.5	5.6	7.5	8.6	6.5
Imports	7.0	6.4	7.4	6.5	6.3	9.1	5.9
Gross domestic product	2.4	1.3	2.0	1.2	1.4	2.0	2.0
			3. Real GDP by type of expenditure a) Chain-linked volume data in Euro billion				
Consumption	1 632.4	1 623.5	1 622.1	797.9	825.6	797.3	824.8
Private households[2]	1 238.6	1 232.9	1 230.8	605.6	627.3	603.1	627.8
Government	393.7	390.5	391.3	192.2	198.3	194.3	197.0
Fixed capital formation	396.6	392.9	398.5	186.0	206.9	189.0	209.5
Machinery and equipment	161.3	167.8	175.4	78.4	89.4	82.0	93.4
Construction	208.7	198.5	196.1	94.7	103.8	93.9	102.2
Other	27.1	27.6	28.7	13.3	14.3	13.8	14.9
Domestic demand	2 027.9	2 026.6	2 033.9	995.9	1 030.7	997.4	1 036.5
Exports	855.0	905.5	964.6	442.2	463.3	475.9	488.6
Imports	764.6	796.5	837.3	384.0	412.6	406.5	430.7
Gross domestic product	2 119.4	2 136.4	2 161.0	1 054.1	1 082.2	1 066.3	1 094.7
			b) Change (%) on the previous year				
Consumption	0.0	–0.5	–0.1	–0.3	–0.8	–0.1	–0.1
Private households[2]	0.6	–0.5	–0.2	–0.2	–0.8	–0.4	0.1
Government	–1.6	–0.8	0.2	–0.9	–0.8	1.1	–0.7
Fixed capital formation	–0.2	–0.9	1.4	–1.0	–0.9	1.6	1.3
Machinery and equipment	2.6	4.1	4.5	5.7	2.7	4.5	4.5
Construction	–2.3	–4.9	–1.2	–5.9	–3.9	–0.8	–1.6
Other	1.8	2.1	4.0	2.2	2.0	3.6	4.3
Domestic demand	0.5	–0.1	0.4	0.3	–0.4	0.1	0.6
Exports	9.3	5.9	6.5	4.8	7.0	7.6	5.5
Imports	7.0	4.2	5.1	4.5	3.8	5.9	4.4
Gross domestic product	1.6	0.8	1.2	0.6	1.0	1.2	1.1

Appendix 1 (contd)

Federal Republic of Germany: Key National Accounts Data – Forecast for 2005 and 2006

	2004	2005	2006	2005		2006	
				1st half	2nd half	1st half	2nd half
	4. GDP by type of expenditure: price level of national expenditure (2000=100) Change (%) on the previous year						
Private consumption[2]	1.4	1.5	1.7	1.2	1.8	2.0	1.4
Government consumption	0.9	1.0	0.7	1.0	0.9	0.4	1.1
Fixed capital formation	0.3	0.1	–0.1	0.3	–0.1	–0.1	–0.2
Machinery and equipment	–1.0	–0.8	–0.2	–1.0	–0.6	–0.2	–0.3
Construction	1.3	0.9	0.0	1.4	0.4	0.1	0.0
Exports	–0.2	0.6	0.9	0.8	0.5	0.9	1.0
Imports	0.0	2.2	2.2	1.9	2.4	3.0	1.5
Gross domestic product	0.8	0.5	0.8	0.6	0.4	0.8	0.8
	5. Factor incomes in GNP a) Euro billion						
Primary income of private households[2]	1 638.2	1 651.3	1 681.8	815.1	836.2	829.9	851.9
Employer social security contributions	222.5	219.6	220.2	107.4	112.2	106.5	113.7
Wages and salaries, gross	912.0	911.0	921.9	432.5	478.5	436.9	485.0
Other primary income[4]	503.7	520.7	539.6	275.3	245.5	286.5	253.2
Primary income of the other sectors	251.3	270.8	280.6	120.5	150.3	125.7	154.9
Net national income (primary income)	1 889.5	1 922.1	1 962.4	935.6	986.4	955.6	1 006.8
Depreciation	326.5	328.8	332.9	163.7	165.1	165.4	167.6
Gross national product	2 216.0	2 250.9	2 295.3	1 099.4	1 151.5	1 120.9	1 174.4
Memo item: national product at factor costs	1 658.3	1 689.4	1 720.7	821.9	867.6	836.2	884.5
Entrepreneurial and property income	523.8	558.9	578.6	282.0	276.9	292.8	285.8
Compensation of employees	1 134.5	1 130.6	1 142.1	539.9	590.7	543.4	598.7
	b) Change (%) on the previous year						
Primary income of private households[2]	1.3	0.8	1.8	1.3	0.3	1.8	1.9
Employer social security contributions	–0.4	–1.3	0.3	–0.5	–2.1	–0.8	1.3
Wages and salaries, gross	0.5	–0.1	1.2	–0.2	0.0	1.0	1.4
Wages and salaries, gross per employee	0.5	0.2	0.7	0.2	0.2	0.7	0.7
Other primary income[4]	3.6	3.4	3.6	4.6	2.1	4.1	3.1
Primary income of the other sectors	20.6	7.8	3.6	4.3	10.6	4.3	3.1
Net national income (primary income)	3.5	1.7	2.1	1.7	1.7	2.1	2.1
Depreciation	1.6	0.7	1.3	0.6	0.8	1.0	1.5
Gross national product	3.2	1.6	2.0	1.5	1.6	2.0	2.0
Memo item: national product at factor costs	3.6	1.9	1.9	2.0	1.8	1.7	2.0
Entrepreneurial and property income	11.7	6.7	3.5	6.5	6.9	3.8	3.2
Compensation of employees	0.3	–0.3	1.0	–0.3	–0.4	0.7	1.4
	6. Private households' incomes and expenditure[2] a) Euro billion						
Mass income	979.6	981.2	984.3	472.4	508.7	472.5	511.9
Wages and salaries, net	600.3	602.2	606.4	283.0	319.2	283.2	323.2
Monetary social benefits	457.7	459.7	460.4	230.2	229.5	230.8	229.7
Minus: charges on social benefits, consumption-related taxes	78.4	80.8	82.5	40.8	40.0	41.5	41.0
Other primary income[4]	503.7	520.7	539.6	275.3	245.5	286.5	253.2
Other transfers received, net[5]	–35.9	–38.8	–40.0	–19.8	–19.0	–20.5	–19.5
Disposable income	1 447.4	1 463.1	1 484.0	727.9	735.2	738.4	745.6
Increase in claims on company pension schemes	19.0	20.2	21.5	9.4	10.8	10.0	11.5
Private consumption	1 312.5	1 325.8	1 346.0	647.7	678.1	657.9	688.2
Current savings	153.8	157.5	159.5	89.6	67.9	90.6	68.9
Savings ratio[6]	10.5	10.6	10.6	12.2	9.1	12.1	9.1

Appendix 1 (contd)

Federal Republic of Germany: Key National Accounts Data – Forecast for 2005 and 2006

	2004	2005	2006	2005		2006	
				1st half	2nd half	1st half	2nd half
			b) Change (%) on the previous year				
Mass income	1.4	0.2	0.3	–0.2	0.5	0.0	0.6
Wages and salaries, net	2.2	0.3	0.7	0.1	0.5	0.1	1.3
Monetary social benefits	0.6	0.4	0.2	0.0	0.9	0.3	0.0
Minus: charges on social benefits, consumption-related taxes	2.9	3.0	2.2	3.0	2.9	1.8	2.5
Other primary income[4]	3.6	3.4	3.6	4.6	2.1	4.1	3.1
Disposable income	2.1	1.1	1.4	1.3	0.9	1.4	1.4
Private consumption	1.9	1.0	1.5	1.0	1.0	1.6	1.5
Current savings	4.0	2.4	1.2	3.7	0.6	1.1	1.5
			7. Government revenue and expenditure[7]				
			a) Euro billion				
Revenue							
Taxes	481.2	483.4	496.9	238.8	244.7	245.8	251.1
Social contributions	395.3	395.0	398.7	192.7	202.3	194.1	204.6
Property income	12.0	12.2	12.4	5.8	6.4	6.6	5.8
Other current transfers	16.9	19.7	15.9	11.7	8.0	8.0	8.0
Property income, transferred	9.7	9.3	9.3	5.0	4.3	5.0	4.3
Sales	41.3	43.0	43.5	19.2	23.8	19.3	24.1
Other subsidies	0.5	0.4	0.4	0.2	0.2	0.2	0.2
Total revenue	956.8	963.0	977.2	473.4	489.7	479.1	498.1
Expenditure							
Inputs[8]	253.2	257.1	262.2	123.0	134.1	126.1	136.1
Compensation of employees	168.7	167.4	166.3	79.1	88.3	79.1	87.2
Interest payments	62.9	64.3	66.0	31.9	32.4	32.7	33.3
Subsidies	29.0	28.8	28.0	14.1	14.8	13.7	14.3
Monetary social benefits	422.9	424.4	424.5	212.6	211.8	212.9	211.6
Other current transfers	38.3	36.6	40.8	19.4	17.2	20.0	20.8
Capital transfers	33.8	34.4	31.0	20.3	14.2	18.3	12.7
Gross investment	30.8	29.8	30.3	12.7	17.1	12.8	17.5
Net increase in non-produced capital goods	–1.4	–1.4	–1.4	–0.6	–0.8	–0.6	–0.8
Total expenditure	1 038.0	1 041.4	1 047.7	512.4	529.0	514.8	532.8
Deficit/surplus	–81.2	–78.3	–70.5	–39.0	–39.3	–35.8	–34.7
			b) Change (%) on the previous year				
Revenue							
Taxes	–0.1	0.5	2.8	0.9	0.0	2.9	2.6
Social contributions	0.2	–0.1	0.9	–0.1	–0.1	0.7	1.1
Property income	–30.1	1.5	1.6	–0.9	3.7	13.7	–9.4
Other current transfers	7.8	16.6	–19.1	56.8	–15.2	–32.1	–0.3
Property income, transferred	5.8	–3.7	0.0	–3.1	–4.4	–0.2	0.2
Sales	–0.9	4.0	1.2	–1.5	9.0	1.0	1.3
Other subsidies	–	–	–	–	–	–	–
Total revenue	–0.4	0.6	1.5	1.2	0.1	1.2	1.7
Expenditure							
Inputs[8]	–1.2	1.5	2.0	0.8	2.2	2.5	1.6
Compensation of employees	–0.2	–0.7	–0.7	–1.0	–0.5	0.0	–1.2
Interest payments	–2.6	2.1	2.7	1.8	2.5	2.6	2.9
Subsidies	–3.2	–0.5	–3.0	–0.8	–0.2	–2.8	–3.1
Monetary social benefits	0.5	0.4	0.0	–0.1	0.8	0.1	–0.1
Other current transfers	–1.0	–4.3	11.5	5.8	–13.6	2.9	21.1
Capital transfers	–6.0	1.7	–9.9	4.8	–2.5	–9.7	–10.0
Gross investment	–6.5	–3.1	1.6	–6.6	–0.3	0.7	2.3
Net increase in non-produced capital goods	–	–	–	–	–	–	–
Total expenditure	–0.8	0.3	0.6	0.3	0.3	0.5	0.7

1 Real gross domestic product per hour worked. — 2 Incl. private non–profit organisations. — 3 Incl. net increase in value. — 4 Self-employed income/operating profits plus property income received minus property income losses. — 5 Transfers received minus other transfers. — 6 Savings as % of disposable income (including the increase in claims on company pension schemes). — 7 German government and social security funds. — 8 Incl. social benefits in kind and other production charges.
Sources: Federal Statistical Office (Series 18 of the National Accounts); Institutes' calculations; 2005 and 2006: Institutes' prognosis.

Supplement: Economic Indicators
Weekly Report No. 34/2005
(data as of 8 December 2005)

Germany – Selected Seasonally Adjusted Economic Indicators[1]

		Unemployment		Vacancies		Orders in manufacturing (volume)[2]													
						Manufacturing						Intermediate goods industry		Capital goods industry		Durable consumer goods industry		Non-durable consumer goods industry (incl. semi-durable goods industry)	
						Total		Domestic		Abroad									
		in 000s				2000 = 100													
		month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter
2003	J	4 316		391		98.2		93.3		104.2		97.6		99.4		89.0		98.5	
	F	4 363	4 333	379	385	98.4	97.1	94.8	92.9	103.0	102.3	96.9	96.5	100.4	98.4	88.0	87.6	100.0	97.6
	M	4 388		371		94.7		90.7		99.7		95.0		95.3		85.7		94.4	
	A	4 405		365		96.9		92.7		102.1		96.2		98.5		86.8		96.6	
	M	4 399	4 397	352	358	93.1	95.8	91.7	92.4	94.8	99.9	93.6	95.3	93.2	97.0	83.8	84.6	95.6	96.6
	J	4 384		345		97.3		92.9		102.7		96.0		99.5		83.1		97.7	
	J	4 391		345		97.3		93.0		102.7		97.5		98.0		88.2		96.5	
	A	4 399	4 394	341	342	97.3	97.7	92.2	93.1	103.6	103.5	97.1	97.7	98.4	98.9	85.6	87.3	97.7	96.7
	S	4 402		337		98.7		94.2		104.2		98.6		100.2		88.0		96.0	
	O	4 406		333		99.7		94.7		105.8		100.1		100.4		89.2		98.6	
	N	4 403	4 401	331	332	100.2	100.0	95.7	94.7	105.9	106.6	100.8	100.9	101.6	100.7	87.4	88.4	95.8	97.6
	D	4 384		325		100.1		93.6		108.2		101.8		100.1		88.5		98.3	
2004	J	4 296		314		99.7		95.0		105.7		100.6		100.8		87.7		95.0	
	F	4 267	4 296	301	307	100.9	101.0	95.5	95.9	107.6	107.4	102.6	102.2	101.7	102.2	87.6	87.9	94.4	95.3
	M	4 270		285		102.6		97.3		109.1		103.5		104.1		88.3		96.5	
	A	4 314		274		103.7		97.3		111.8		104.8		105.2		87.6		98.6	
	M	4 333	4 321	277	278	106.8	104.2	98.5	97.1	117.1	113.1	106.7	105.1	109.3	105.8	90.4	88.6	99.6	98.3
	J	4 364		278		102.1		95.6		110.3		103.8		103.0		87.8		96.5	
	J	4 403		275		102.8		96.1		111.3		102.7		105.1		87.2		97.8	
	A	4 434	4 416	273	275	103.6	103.2	96.8	96.0	112.2	112.1	104.2	103.3	105.7	105.4	86.8	86.4	97.6	97.9
	S	4 457		274		103.0		95.2		112.8		103.0		105.5		85.2		98.3	
	O	4 482		280		102.7		95.7		111.5		101.9		106.0		84.3		97.4	
	N	4 519	4 504	289	284	102.2	103.5	94.7	96.2	111.7	112.6	101.7	101.5	104.5	107.5	85.6	84.7	100.3	98.9
	D	4 563		294		105.4		98.1		114.7		101.0		112.0		84.3		98.8	
2005	J	4 722		308		105.0		96.2		115.8		103.6		108.1		85.7		103.0	
	F	4 815	4 750	326	319	103.9	104.7	94.7	95.6	115.4	116.1	101.4	102.4	107.6	108.4	85.9	85.9	103.6	103.6
	M	4 863		354		105.2		95.9		117.0		102.3		109.5		86.1		104.1	
	A	4 830		381		103.4		95.4		113.4		101.0		107.0		87.6		101.5	
	M	4 843	4 841	396	386	103.1	105.1	94.8	96.5	113.5	115.8	101.9	102.7	106.0	109.0	84.4	87.2	102.4	102.8
	J	4 837		410		108.7		99.4		120.4		105.1		114.0		89.4		104.6	
	J	4 824		426		109.5		98.8		123.0		106.9		114.3		87.3		105.7	
	A	4 830	4 835	448	438	108.7	109.8	99.1	99.3	120.8	122.9	106.1	106.9	113.1	114.8	90.2	89.0	104.2	104.5
	S	4 861		470		111.2		100.1		125.0		107.7		117.1		89.3		103.6	
	O	4 856		487		112.3		99.8		128.0		109.4		117.7		90.3		106.0	
	N	4 834		490															
	D																		

1 Seasonally adjusted by the Berlin Method (BV4). With this method, the addition of new data can change previous seasonal adjustment patterns even if the original, unadjusted, figures remained unchanged. Quarterly figures are calculated from seasonally adjusted monthly figures. — 2 Also adjusted for working days.

Sources: Federal Labour Office; Federal Statistical Office; DIW Berlin calculations.

Germany – Selected Seasonally Adjusted Economic Indicators[1] (continued)

		Employment in mining and manufacturing		Manufacturing output[2]										Retail trade turnover		Foreign trade (Special trade)[2]			
				Manufacturing		Capital goods industry		Durable consumer goods industry		Non-durable consumer goods industry (incl. semi-durable goods industry)		Construction industries				Exports		Imports	
		in 000s		2000 = 100										2003 = 100		Euro billion			
		month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter
2003	J	6 190		99.6		102.4		88.1		97.5		85.6		100.6		55.5		45.7	
	F	6 182	6 177	100.1	99.3	104.1	102.3	89.1	87.7	97.5	97.0	81.1	83.9	100.4	99.8	55.5	165.1	44.8	135.6
	M	6 172		98.0		100.4		85.9		96.1		84.8		98.5		54.0		45.1	
	A	6 161		99.8		101.6		87.6		99.0		86.8		100.4		54.3		44.5	
	M	6 152	6 157	97.8	98.5	100.2	100.2	85.6	85.6	95.9	97.6	84.9	85.7	102.0	100.3	54.1	163.3	44.1	133.3
	J	6 141		98.0		98.7		83.8		97.9		85.5		98.6		54.9		44.6	
	J	6 130		99.6		102.1		88.6		97.8		86.5		99.7		55.7		44.1	
	A	6 116	6 123	98.2	98.8	99.8	100.9	85.5	86.9	97.4	97.2	83.6	84.8	99.1	99.8	55.7	168.2	44.2	132.1
	S	6 106		98.5		100.6		86.7		96.3		84.4		100.7		56.8		43.9	
	O	6 094		100.3		102.3		88.0		97.7		84.4		101.2		55.6		44.2	
	N	6 086	6 091	101.1	101.1	104.7	104.1	88.1	88.3	96.9	97.6	83.8	84.3	98.8	100.2	56.9	170.9	45.6	135.3
	D	6 078		101.8		105.3		88.9		98.1		84.6		100.7		58.4		45.6	
2004	J	6 049		100.7		103.1		88.2		97.6		81.4		100.5		58.1		45.1	
	F	6 042	6 049	101.5	101.4	103.3	103.8	87.7	88.5	97.4	97.4	86.1	83.9	100.3	100.8	58.6	176.1	46.2	137.1
	M	6 037		102.1		105.2		89.6		97.2		84.2		101.6		59.4		45.7	
	A	6 032		102.5		105.2		88.5		97.9		80.9		100.9		61.4		47.0	
	M	6 024	6 028	105.3	103.6	109.1	107.0	92.3	89.7	99.6	98.4	82.2	81.2	98.1	100.3	62.6	184.4	48.2	142.2
	J	6 019		103.2		106.7		88.4		97.7		80.5		101.8		60.3		47.0	
	J	6 013		102.9		106.0		88.1		97.7		79.1		101.9		61.0		48.7	
	A	6 010	6 011	104.1	103.6	108.1	107.3	87.7	87.6	98.3	98.2	79.7	79.2	100.1	101.0	60.7	181.8	48.1	145.6
	S	6 004		103.9		107.7		87.0		98.5		78.8		100.9		60.2		48.9	
	O	6 000		103.3		107.8		86.0		97.7		77.7		100.0		62.5		49.3	
	N	5 990	5 995	102.4	102.5	104.7	105.6	85.4	85.5	98.4	97.9	77.3	77.4	102.5	101.5	61.8	184.9	48.8	146.1
	D	5 984		101.9		104.3		85.3		97.5		77.1		101.9		60.6		48.0	
2005	J	5 971		104.8		108.3		86.9		99.0		79.6		101.1		63.0		49.6	
	F	5 960	5 966	103.8	104.4	107.8	108.4	87.1	86.7	99.4	99.5	72.4	73.8	101.9	101.6	62.5	188.9	48.7	148.1
	M	5 950		104.7		109.2		86.2		100.1		69.5		101.9		63.4		49.7	
	A	5 941		105.0		110.3		88.0		98.7		75.2		101.5		62.0		49.9	
	M	5 936	5 938	103.0	104.8	106.2	109.5	83.1	87.4	99.2	99.3	74.2	75.0	103.1	102.6	62.5	189.3	50.8	151.3
	J	5 926		106.5		112.1		91.0		99.9		75.8		103.2		64.8		50.6	
	J	5 915		106.2		110.5		85.2		101.6		74.8		99.5		65.2		51.4	
	A	5 912	5 914	106.0	106.7	109.3	110.8	89.2	87.5	101.1	101.9	76.8	75.5	104.1	101.8	66.2	199.1	52.8	157.3
	S	5 906		108.0		112.7		88.1		103.1		74.8		101.8		67.7		53.1	
	O			108.2		112.0		88.4		103.5		75.0		100.9					
	N																		
	D																		

1 Seasonally adjusted by the Berlin Method (BV4). With this method, the addition of new data can change previous seasonal adjustment patterns even if the original, unadjusted, figures remained unchanged. Quarterly figures are calculated from seasonally adjusted monthly figures. — 2 Also adjusted for working days.

Sources: Federal Statistical Office; DIW Berlin calculations.

Germany's Quarterly National Accounts Data

Unadjusted figures

	2002	2003	2004	2002				2003				2004				2005		
				I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III
GDP by type of expenditure at current prices, euro billion																		
Private consumption	1266.7	1287.6	1312.5	304.1	313.9	319.0	329.7	310.3	320.4	323.4	333.5	316.3	325.0	328.1	343.1	317.7	330.6	332.8
Government consumption	412.3	415.5	412.8	97.7	98.3	100.0	116.4	98.7	99.0	102.4	115.3	99.0	99.6	101.3	112.9	98.5	100.7	102.1
Fixed capital formation	392.9	384.4	384.9	88.2	101.8	102.3	100.6	84.5	98.5	101.2	100.3	84.3	98.2	101.2	101.3	81.2	100.0	101.5
Machinery and equipment	151.9	146.9	149.4	34.6	38.6	36.8	42.0	33.6	36.4	35.8	41.1	32.8	36.4	37.3	42.8	33.7	38.7	38.6
Construction	216.5	213.0	210.7	47.6	57.3	59.5	52.1	44.9	56.1	59.3	52.7	45.5	55.7	57.6	51.9	41.4	55.2	56.6
Other	24.5	24.5	24.9	6.0	6.0	6.1	6.5	5.9	6.0	6.1	6.5	6.0	6.1	6.2	6.6	6.1	6.1	6.3
Change in stocks	–24.0	–11.6	–4.0	3.1	–8.5	2.9	–21.4	9.3	–5.5	1.0	–16.5	7.9	–7.1	8.9	–13.7	9.8	–2.9	9.0
External surplus or deficit	97.1	87.6	109.5	23.7	23.7	22.6	27.1	19.8	20.1	23.4	24.3	31.0	33.5	21.3	23.8	33.1	32.0	23.9
Exports	765.6	772.7	842.8	181.1	191.6	192.4	200.4	189.3	188.7	194.1	200.7	200.8	213.2	209.0	219.8	210.3	225.3	228.5
Imports	668.5	685.1	733.4	157.4	167.9	169.9	173.3	169.5	168.5	170.7	176.4	169.9	179.8	187.7	196.0	177.2	193.3	204.7
Gross domestic product	2145.0	2163.4	2215.7	516.8	529.2	546.7	552.4	522.6	532.5	551.4	556.9	538.4	549.1	560.8	567.4	540.3	560.4	569.2
Change (%) on the previous year																		
Private consumption	0.6	1.7	1.9	0.6	0.1	0.9	0.9	2.0	2.1	1.4	1.2	1.9	1.4	1.4	2.9	0.4	1.7	1.4
Government consumption	3.0	0.8	–0.6	2.9	3.6	3.5	2.2	1.0	0.8	2.4	–0.9	0.3	0.6	–1.1	–2.1	–0.4	1.1	0.8
Fixed capital formation	–7.1	–2.2	0.1	–9.8	–7.0	–5.6	–6.2	–4.2	–3.3	–1.1	–0.3	–0.2	–0.3	0.0	1.0	–3.6	1.9	0.3
Machinery and equipment	–9.3	–3.2	1.7	–14.6	–9.4	–7.5	–5.8	–2.7	–5.6	–2.6	–2.0	–2.4	0.1	4.3	4.0	2.8	6.3	3.4
Construction	–6.1	–1.6	–1.1	–7.1	–5.8	–4.8	–7.0	–5.7	–2.1	–0.4	1.1	1.3	–0.8	–2.7	–1.5	–9.0	–0.9	–1.8
Other	–1.5	–0.2	1.6	–0.5	–2.1	–2.1	–1.4	–1.2	–0.3	0.5	0.0	0.5	1.8	2.0	2.2	1.7	1.2	1.1
Exports	4.1	0.9	9.1	–0.2	4.0	7.1	5.4	4.5	–1.5	0.9	0.1	6.1	13.0	7.7	9.6	4.7	5.7	9.3
Imports	–3.6	2.5	7.0	–8.7	–4.2	–2.6	1.3	7.7	0.4	0.5	1.8	0.2	6.7	10.0	11.1	4.3	7.5	9.0
Gross domestic product	1.5	0.9	2.4	0.7	1.5	2.7	1.1	1.1	0.6	0.9	0.8	3.0	3.1	1.7	1.9	0.4	2.1	1.5
GDP by type of expenditure as price-adjusted chain-linked index (2000 = 100)																		
Private consumption	101.3	101.5	102.0	97.3	100.6	102.1	105.3	97.7	101.3	101.9	104.9	98.6	101.2	101.8	106.5	97.9	101.9	101.7
Government consumption	102.0	102.1	100.5	99.7	99.8	100.5	107.9	100.1	100.0	101.0	107.2	99.2	98.7	100.0	104.0	97.5	98.6	100.0
Fixed capital formation	90.5	89.8	89.7	80.8	93.4	94.5	93.4	78.6	91.7	94.7	94.2	78.7	91.1	94.2	94.6	75.3	92.9	94.6
Machinery and equipment	89.1	88.9	91.3	80.2	89.5	86.8	99.8	80.6	87.6	87.3	100.3	79.6	88.4	91.7	105.4	82.5	95.1	95.8
Construction	89.8	88.4	86.3	78.9	95.1	98.7	86.6	74.5	93.1	98.4	87.5	75.3	91.2	94.1	84.6	67.1	89.6	91.9
Other	107.6	111.1	113.1	103.9	104.0	107.4	114.9	107.0	106.8	110.8	119.8	109.0	109.0	112.6	121.9	111.3	111.3	114.8
Exports	111.0	113.6	124.2	105.5	111.2	111.4	115.9	110.6	110.6	114.4	118.9	119.4	125.8	122.7	128.9	123.8	132.1	133.0
Imports	99.9	104.9	112.3	93.8	99.3	101.9	104.5	101.9	103.0	105.1	109.7	105.4	110.3	114.2	119.1	107.8	116.5	121.0
Gross domestic product	101.3	101.1	102.8	98.5	101.1	103.1	102.4	98.8	100.4	102.6	102.7	100.7	102.4	103.9	104.0	100.3	104.1	105.2
Change (%) on the previous year																		
Private consumption	–0.5	0.1	0.6	–1.0	–1.0	–0.2	0.0	0.4	0.7	–0.2	–0.3	0.9	–0.1	–0.1	1.5	–0.7	0.7	0.0
Government consumption	1.4	0.1	–1.6	0.8	1.7	2.0	1.1	0.5	0.2	0.5	–0.6	–0.9	–1.3	–1.0	–3.0	–1.8	–0.1	0.1
Fixed capital formation	–6.1	–0.8	–0.2	–9.2	–6.1	–4.3	–5.0	–2.7	–1.8	0.3	0.9	0.2	–0.6	–0.6	0.4	–4.3	2.0	0.5
Machinery and equipment	–7.5	–0.2	2.6	–13.7	–8.1	–5.0	–3.6	0.4	–2.1	0.6	0.4	–1.3	0.9	5.1	5.1	3.7	7.5	4.5
Construction	–5.8	–1.6	–2.3	–6.7	–5.5	–4.6	–6.9	–5.7	–2.1	–0.3	1.0	1.2	–2.0	–4.4	–3.3	–10.9	–1.8	–2.3
Other	1.3	3.3	1.8	0.8	0.7	1.6	2.0	3.0	2.7	3.2	4.2	1.9	2.0	1.6	1.7	2.2	2.2	1.9
Exports	4.2	2.4	9.3	0.4	4.8	7.1	4.7	4.9	–0.5	2.7	2.7	8.0	13.7	7.3	8.4	3.7	5.0	8.4
Imports	–1.4	5.1	7.0	–6.4	–2.1	0.2	2.8	8.6	3.7	3.1	5.1	3.5	7.1	8.7	8.5	2.2	5.7	6.0
Gross domestic product	0.1	–0.2	1.6	–1.1	0.2	1.0	0.0	0.3	–0.8	–0.5	0.3	2.0	2.1	1.2	1.3	–0.5	1.6	1.3

Sources: Federal Statistical Office; DIW Berlin calculations.